



LEGISLATIVE COUNCIL OF FIJI

COUNCIL PAPER NO. 39 OF 1958



Colony of Fiji

ANNUAL REPORT
OF THE
MEDICAL DEPARTMENT
FOR THE YEAR
1957

THE ROYAL SOCIETY
for the Promotion
OF HEALTH
LIBRARY





Colony of Fiji

ANNUAL REPORT
OF THE
MEDICAL DEPARTMENT
FOR THE YEAR
1957

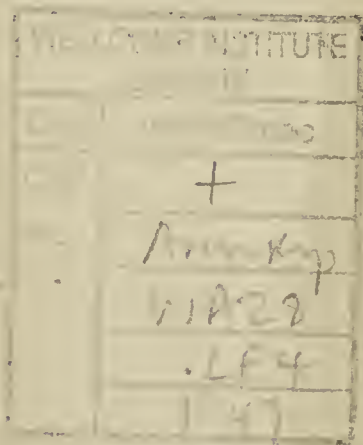
FIJIAN SPELLING

Two systems of spelling Fijian names and words are in use in the Colony. The "Fijian" system was devised during the period 1835-37 by the Missionaries who first reduced the Fijian language to writing. They aimed at representing the various Fijian sounds by single letters and the system that resulted has been used ever since by the Fijian people and is in general use within the Colony. The letters concerned are "b", "c", "d", "g", and "q" and the following examples indicate the manner in which they are pronounced.

- (i) B is pronounced "MB" as in number, e.g. LABASA = LAMBASA.
- (ii) C is pronounced "TH" as in that, e.g. CAUTATA = THAUTATA.
- (iii) D is pronounced "ND" as in end, e.g. NADI = NANDI.
- (iv) G is pronounced "NG" as in sing, e.g. NASIGATOKA = NASINGATOKA.
- (v) Q is pronounced "NGG" as in finger, e.g. YAQARA = YANGGARA.


In practically all words in Fijian, the accent is on the penultimate syllable.

2. The "phonetic" system is a more recent attempt to render Fijian words in English spelling. It is used in maps and in documents designed primarily for overseas reading, e.g. MBAU (BAU), THAKOMBAU (CAKOBAN), NANDI (NADI), NANDRONGA (NADRONGA), MBENGA (BEKA).



CONTENTS

	<i>Page</i>
I—GENERAL REVIEW	1
II—ADMINISTRATION—	
Establishment and Staff—Appointments, Transfers, etc.	3
Legislation	3
Finance	4
Colonial Development and Welfare Projects	5
International Agencies	5
Departmental Research	5
III—PUBLIC HEALTH—	
Organization	6
Communicable Diseases	6
Vital Statistics	7
IV—HYGIENE AND SANITATION	7
V—SEAPORT AND AIRPORT HEALTH AND QUARANTINE	8
VI—HOSPITALS AND DISPENSARIES	8
VII—DENTAL DIVISION	9
VIII—LABORATORY DIVISION	9
IX—NUTRITION	9
X—TRAINING	10
XI—DEPARTMENTAL VESSELS	10
XII—PHILANTHROPIC ORGANIZATIONS	11
XIII—METEOROLOGY	11
APPENDICES—	
I—Departmental Establishment	12
II—(a) Hospitals and Dispensaries	13
(b) In-patients and Out-patients	14
III—Tuberculosis	15
IV—Filariasis	16
V—Colonial War Memorial Hospital, Suva	17
VI—Mental Hospital, Suva	23
VII—Central Leprosy Hospital, Makogai	25
VIII—St. Elizabeth Home, Korovou, Suva	29
IX—Dental Division	30
X—Pathological Division	32
XI—Central Medical School	37
XII—Nursing Division	39
XIII—Notifications of Infectious Diseases	43
XIV—Vital Statistics	43
XV—Return of Diseases and Deaths	45
XVI—Local Authorities	50
XVII—Suva Gaol	53
XVIII—Meteorology	54



Digitized by the Internet Archive
in 2019 with funding from
Wellcome Library

<https://archive.org/details/b31481516>



MEDICAL DEPARTMENT

(ANNUAL REPORT FOR 1957)

I—GENERAL REVIEW

It has been said that medicine is more an art than a science, but, while it is true that the physician has to employ special skills in making his diagnosis and the surgeon a certain dexterity in his treatments, as the breadth of man's knowledge of man extends so has the diagnosis and treatment of disease become increasingly systematized. The importance of laboratory and X-ray examinations in the identification of disease is now fully recognized and the laboratory is playing a greater and greater part in decisions as to which treatment should be applied.

2. In the field of preventive and social medicine, although the laboratory plays an important part, the statistical approach is that which provides essential information in regard to the pattern of disease and the form which any programme for the improvement of the public health should take. Much of the statistical material is provided by workers in the curative sphere and, therefore, there must be close co-ordination between the curative and preventive services.

3. The accuracy of any statistics does, of course, depend on the reliability of the investigator and computer, the facilities offered to them, the organization available for collecting the information and the educational standard and intelligence of those from whom the information is obtained. Even should all factors be of the highest standard, there still remains that difficulty of expression in those questioning and questioned which precludes the full acceptance of statistical results *per se* as a proof of a hypothesis. Obviously, therefore, the simpler the information required for record, the more accurate the statistical material will be. For example, the factual recording of a death or birth will be more reliable than information regarding the age at which death occurred or what caused death.

4. Insofar as statistics in the Colony are concerned, basic information has recently been made available in the Census Report compiled by Dr. MacArthur, and thus population figures can now be accepted as accurate. It is considered that reasonable reliance can be placed on crude death rates and to a lesser extent birth rates. Information in respect of infant mortality rates, stillbirths, neo-natal deaths, have to be treated with caution, but general conclusions can be drawn, particularly in respect of differences in race groups. Few, if any, conclusions can, however, be drawn from figures showing causes of death as rarely is this information backed by a medical certificate. Notifications of infectious diseases provide useful information as regards trends, but no record should be accepted as showing the actual number of cases occurring of any one disease. Assessment of accuracy in respect of the more important infectious diseases will be made in another section of this report. A clearer analysis of the vital statistics is made in a later section, but it may be noted here that birth rate amongst Fijians has shown a slight increase whereas that among Indians remains the same, although the rate still remains appreciably higher in the Indian population. The crude death rate is slightly raised in Fijians and slightly lower in Indians than in the previous year, but this probably is of little, if any, significance. The infant mortality rate shows an appreciable decline in both races, that among Fijians being 42.31 per 1,000 (1956 figure was 48.16) and among Indians 35.57 per 1,000 as against 44.54 in 1956.

5. The health of the population was affected during the year by two epidemics, one of measles, when 7,066 cases were notified, and the other of influenza, when 12,190 notifications were received. The mortality rate in each was negligible and complications were rare thus, apart from the loss of working hours, the epidemics can have had little influence on the future affairs of the Colony. A local outbreak of paratyphoid fever occurred in the Rewa area, but otherwise the disease was of average incidence. However, the number of cases of infantile diarrhoea reported remains far too high and, whatever the cause of the disease may be, indicates that environmental sanitation and infant welfare are still well below standard. Similarly, the fact that 38 cases of tetanus were notified and 6 cases of diphtheria, shows that parents are not taking full advantage of facilities available to have their children immunized against these diseases.

6. The number of cases of infective hepatitis (123) reported was double that of the previous year and although this probably has no statistical significance, but indicates merely a greater awareness of the condition on the part of medical personnel, the epidemiology of the disease still remains largely a mystery and results of research are awaited with interest.

7. Tuberculosis remains as the number one public health menace and the special steps being taken to combat the disease are set out in the appropriate section of this report. These may be summarized as consisting of increased facilities for treatment and segregation of infectious cases, improved case finding and follow-up of known cases, B.C.G. vaccination of all persons up to the age of 20 years and general health education. A large sum of money has been made available for this campaign by the Anti-Tuberculosis War Memorial Fund Trustees.

8. Hygiene and sanitation, both in urban and rural areas, still leave much to be desired, although there is an increasing awareness on the part of the public, particularly in urban areas, of the need for better conservancy methods and food handling. The press and local health authorities have been active in a campaign to improve conditions in restaurants and eating houses and legislation introduced during the year has provided the authorities with wider powers in this respect. Health education has been intensified and an Assistant Medical Officer is now employed whole-time on this work. The Education Department has co-operated whole-heartedly and both the press and Broadcasting Commission have assisted greatly. The Nutrition Section of the South Pacific Health Service has also been active in providing educational material.

9. The Colonial War Memorial Hospital, Suva, continued to function in its triple role as specialist centre for the Colony, training hospital for Assistant Medical Officers and Divisional hospital for the Central Division. Much needed alterations and extensions to this hospital are planned, particularly to the out-patients' department, operating theatre block and obstetric section, but meanwhile a considerable number of improvements have been carried out as a result of the enthusiasm and drive of the Medical Superintendent and the close co-operation of all members of his staff. Work at the other divisional hospitals, at Lautoka, Labasa and Levuka, has also continued at full pressure. These hospitals are of out-of-date design and facilities are limited. It is thus all the more to the credit of the staff that high professional standards have been maintained, particularly as there has been a shortage of both medical and nursing staff throughout the year. Owing to the importance of its role, it is essential that staff at the Colonial War Memorial Hospital be up to full strength and thus regrettable as it may seem to those most closely affected, it is usually the other divisional hospitals and out-stations that suffer when staff deficiencies occur.

10. The fourteen rural hospitals fulfilled a useful function in reducing pressure on divisional hospitals and providing care and attention for those patients whose condition could be treated without resort to laboratory or X-ray examination. The number of dispensaries remained at 47. These units are the centres from which Assistant Medical Officers operate in the rural areas and up to the present time activity has been mainly in the curative field. It is intended, however, to introduce a wider public health programme and by placing greater emphasis on preventive medicine in the Assistant Medical Officer's training and co-ordinating his work more closely with that of the Assistant Health Inspector and District Nurse, to improve village sanitation and hygiene.

11. Separate sections of this report are devoted to the work carried out at the special hospitals, Tamavua Tuberculosis Hospital, Makogai Leprosy Settlement and Hospital and the Mental Hospital, and thus brief mention only is necessary in this review. The Tamavua Hospital is to be enlarged by a further sixty beds and recreation and records rooms are to be constructed. The number of patients at Makogai is gradually being reduced as leprosaria are built elsewhere and fewer patients are now sent from outside territories. It is probable, however, that the Makogai Hospital will be required for, at least, a further fifteen years.

12. The Dental Centre at the Colonial War Memorial Hospital was completed at the beginning of the year and the staff of the section, both teaching and treatment, was strengthened by the appointment of two additional dental officers. The dental health education programme continued.

13. The organization of the Department has been changed to some extent by giving greater autonomy to the divisions. The Divisional Medical Officer is responsible for the administration of his divisional hospital and the medical and public health work of his division, except in the case of the Central Division, where the Colonial War Memorial Hospital is in the charge of a Medical Superintendent and the public health and smaller hospitals are under the control of a Senior Medical Officer. As advisors in the public health, maternity and child welfare field, the Divisional Medical Officer has Health Inspectors and Health Sisters and these also supervise the work of Assistant Health Inspectors and District Nurses respectively. It is intended that as Assistant Medical Officers acquire more knowledge of preventive medicine they will control directly the work of the Assistant Health Inspectors and Nurses in their area.

14. Training courses for Assistant Medical Officers and Assistant Dental Officers continued at the Central Medical School during the year and at the end of 1956, the first group of students who had undertaken the five year Assistant Medical Officer's course graduated. This group included four women who, after a year on hospital duties, will be posted to dispensaries for district work. The Nuffield Foundation has made a grant of £15,000 to establish a department of Preventive and Social Medicine at the Medical School. Nurses training schools at Tamavua and Lautoka were filled to capacity and accommodation is now a problem if a full supply of staff is to be maintained for hospital and district work. The first group of students training on the New Zealand curriculum will graduate in 1958. Other courses of training in sanitation, pharmaceutical chemistry, radiography and laboratory technology continued throughout the year, but the course in mosquito control as a separate entity was discontinued and integrated with the sanitation course. Two students completed the catering course and were taken on the staff as Assistant Housekeepers.

II—ADMINISTRATION

ESTABLISHMENT AND STAFF

15. The Departmental establishment is shown at Appendix I to this report.

16. *Medical Directorate*—Dr. W. H. McDonald, M.B.E. (Mil.) was promoted Deputy Director of Medical Services in February and proceeded on vacation and study leave in August.

Dr. W. L. I. Verrier, Senior Medical Officer, acted as Deputy Director as from August.

17. *Senior Staff Changes, Appointments, Transfers, etc.*—Dr C. H. Gurd, Physician Specialist, returned from leave in April.

Dr. P. J. Daly, Ophthalmologist, resigned in December.

Ratu Dr. J. A. R. Dovi, M.B.E., Senior Medical Officer, returned from vacation leave in January and was posted as Divisional Medical Officer, Eastern Division.

Dr. T. Jefferson returned from vacation leave in January and Drs. D. W. Bookless and T. G. Hawley returned from combined study-vacation leave in September, both having been successful in obtaining the Diploma in Public Health.

Dr. A. J. Hibell proceeded on study-vacation leave in August.

Dr. D. K. Gray accepted transfer to Uganda in December.

Drs. G. O. Hallman, H. W. Conran, L. H. Hatcher, A. E. Dugdale and H. J. Marrable resigned from the Service during the year.

Dr. P. B. Thompson was appointed to the Service in January.

Dr. T. I. Rowland was transferred to the British Solomon Islands Protectorate and replaced by Dr. J. L. M. de Beaux from the Protectorate, in September.

Mr. A. H. Thompson and Mr. J. D. Godfrey were appointed Dental Officers in June and May respectively.

Mr. R. E. Shaw, F.R.C.S., transferred to the Gold Coast as Surgical Specialist on 13th June.

LEGISLATION

18. Legislation of medical interest was as follows:—

1957—Legal Notice No. 4, approves of the free entry of bacteriological products, sera and vaccines, into Colony.

1957—Legal Notice No. 5, amends the Pure Food Regulations.

1957—Legal Notice No. 8, an Order setting out certain substances deemed to be poisons for the purposes of the Pharmacy and Poisons Ordinance.

1957—Legal Notice No. 13, amends Part II to Schedule B to the Prisons Regulations.

1957—Legal Notice No. 28, amends the Prisons Regulations.

1957—Legal Notice No. 31, amends the Poisons Regulations.

1957—Legal Notice No. 36, amends the Public Hospitals and Dispensaries Regulations, 1955.

1957—Legal Notice No. 48, amends the Public Health (Hairdressers and Chiropodists) Regulations, 1954.

1957—Legal Notice No. 60, an Order pertaining to Part III of the Dangerous Drugs Ordinance.

1957—Legal Notice No. 69, an Order concerning the sale of Medicines.

1957—Legal Notice No. 70, approves of the free entry of certain drugs and surgical dressings, into the Colony.

1957—Legal Notice No. 78, amends the Pure Food Regulations.

1957—Legal Notice No. 93, Proclamation concerning public burial ground.

1957—Legal Notice No. 95, Factories (Health, Safety and Welfare) Regulations.

1957—Legal Notice No. 96, Proclamation concerning Factories Ordinance, 1957.

1957—Legal Notice No. 99, an Order made under paragraph (3) of Regulation 23 of the Factories (Health, Safety and Welfare) Regulations, 1957.

1957—Legal Notice No. 100, an Order made under subsection (3) of section 13 of the Factories Ordinance, 1957.

1957—Ordinance No. 6 of 1957, to amend the Water Supply Ordinance.

1957—Ordinance No. 7 of 1957 to amend the Prisons Ordinance.

1957—Ordinance No. 11 of 1957 to provide for the control of experiments on animals and for purposes incidental thereto and connected therewith.

1957—Ordinance No. 13 of 1957 to provide for the Regulation of the conditions of employment in factories and other places as regards the Health, Safety and Welfare of persons employed therein, for the safety and inspection of certain plant and machinery, and for purposes incidental to, or connected with matters aforesaid.

1957—Ordinance No. 27 of 1957, to amend the Public Health Ordinance.

1957—Ordinance No. 28 of 1957, to amend the Law Relating to Medical and Dental Practitioners.

1957—Ordinance No. 31 of 1957 Relating to Weights and Measures and for the amendment of the Pure Food Ordinance.

FINANCE

19. Expenditure for the year 1957—General District and Special Hospitals:—

Salaries of Medical Officers	..	..	..	..	..	£27,261
Salaries of Assistant Medical Officers	..	..	..	..	..	23,304
Salaries of Laboratory Staff	..	..	..	..	..	9,656
Salaries of Nursing Staff	..	..	..	..	..	59,452
Salaries of X-Ray Staff	..	..	..	..	..	1,897
Salaries of Clerical Staff	..	..	..	..	..	8,522
Salaries of Dental Staff	..	..	..	..	..	4,866
Wages of Subordinate Staff	..	..	..	..	..	61,218
Rations	..	..	..	..	..	85,381
Power, Heat, Light, Water and Refrigeration	..	..	..	..	..	14,105
X-Ray services	..	..	..	..	..	1,343
Laundry	..	..	..	..	..	2,458
Workshop	..	..	..	..	..	36
Occupational Therapy	..	..	..	..	..	47
Hospital Paupers' Burials	..	..	..	..	..	5
General Maintenance, Stores and Incidentals	..	..	..	..	..	5,504
Drugs, Instruments and Appliances	..	..	..	..	..	38,958
Bedding, Clothing and Equipment	..	..	..	..	..	12,700
Books and Periodicals	..	..	..	..	..	177
Total	..	..	..	..	..	£357,890

20. Expenditure for the year 1957—Rural Hospitals and Dispensaries:—

Salaries of Medical Officers	..	..	..	..	..	5,231
Salaries of Assistant Medical Officers	..	..	..	..	..	39,848
Salaries of Nursing Staff	..	..	..	..	..	46,016
Salaries of Clerical Staff	..	..	..	..	..	498
Wages of Subordinate Staff	..	..	..	..	..	14,402
Rations	..	..	..	..	..	12,417
General Upkeep, Stores and Maintenance	..	..	..	..	..	3,720
Hospital Paupers' Burials	..	..	..	..	..	12
Drugs, Instruments and Appliances	..	..	..	..	..	10,615
Bedding, Clothing and Equipment	..	..	..	..	..	1,522
Total	..	..	..	..	..	£134,281

21. Medical Stores and Equipment—Value of issues to nearest £ :—

					<i>Drugs and Instruments</i>	<i>Clothing and Bedding</i>	<i>Total</i>
					£	£	£
Cash Sales	..	..	..	..	11	....	11
Private Accounts	..	..	..	..	161	....	161
Special Hospitals	..	..	..	..	6,030	3,921	9,951
General Hospitals	..	..	..	..	32,949	8,779	41,728
Rural Hospitals	..	..	..	..	4,955	1,443	6,398
Dispensaries	..	..	..	..	5,660	79	5,739
Health Sisters	..	..	..	..	1,227	124	1,351
Child Welfare Nurses	..	..	..	..	2,542	277	2,819
Missions	..	..	..	..	62	....	62
Other Medical	..	..	..	..	523	124	647
Other Departments	..	..	..	..	1,645	189	1,834
Total	..	..	..	..	£55,765	£14,936	£70,701

22. Revenue and Expenditure of the Department:—

					1955	1956	1957
					£	£	£
Gross Expenditure	..	..	..	..	713,547	804,295	852,119
Revenue	..	..	..	..	88,233	84,860	83,961
Nett Expenditure	..	..	..	..	625,314	719,455	768,158
Percentage of Colony's Expenditure	..	..	..	..	13 per cent	11 per cent	11·62 per cent
Expenditure per head of population	..	..	..	..	36s. 3d.	40s. 2d.	42s. 7d.

These figures include revenue and expenditure of the South Pacific Health Service.

23. The following table shows the expenditure on Medical and Health Services per head of the population over the past 10 years:—

<i>Year</i>						<i>Total Population</i>	<i>Expenditure per head</i>
1948	..	..	..	..	..	277,372	24s. 4d.
1949	..	..	..	..	..	284,955	25s. 0d.
1950	..	..	..	..	..	293,764	27s. 2d.
1951	..	..	..	..	..	301,959	32s. 10d.
1952	..	..	..	..	..	312,678	36s. 7d.
1953	..	..	..	..	..	320,801	38s. 8d.
1954	..	..	..	..	..	333,389	36s. 9d.
1955	..	..	..	..	..	345,164	36s. 3d.
1956	..	..	..	..	..	357,881	40s. 2d.
1957	..	..	..	..	..	361,038	42s. 7d.

COLONIAL DEVELOPMENT AND WELFARE PROJECTS

24. *Central Medical School and Central Nursing School*—These institutions, built from grants from the Colonial Development and Welfare funds, were occupied in 1954 and 1955 respectively. Further information is contained in Appendix XI.

25. The Dental Centre at the Colonial War Memorial Hospital was completed at the beginning of the year and there is now ample space both for treatment of patients and teaching of students undertaking courses in dentistry and dental hygiene.

26. A new out-patients' department and maternity wing is badly needed at the Colonial War Memorial Hospital, but decision has not yet been reached as regards availability of funds.

27. *Central Medical Reference Library*—The Medical Reference Library, which was established as a result of a grant in 1949, continued to serve a useful purpose and a reasonable allocation of funds has been provided to keep it up to date. Unfortunately the distance between the Central Medical School and the Colonial War Memorial Hospital and Suva City centre is 3–4 miles and thus the library cannot be used as easily by hospital staff and private practitioners as one could wish. Some of the material used for day to day reference has therefore been moved to the hospital.

28. *Filariasis Research*—Mr. C. B. Symes, O.B.E., Entomologist from Her Majesty's Overseas Research Service, completed his tour of duty in December, 1956, and the investigation into filariasis and mosquito control is being continued by Mr. G. F. Burnett also of the Research Service. The main lines of research are now connected with the use of insecticides for mosquito control and treatment of filariasis with hetrazan.

INTERNATIONAL AGENCIES

29. *World Health Organization Fellowships*—Dr. D. W. Bookless, who had been awarded a fellowship for the purpose of obtaining a diploma in public health, returned to the Colony in September, having been successful in obtaining the diploma.

30. Jimione Samisoni and Joji Guivalu who were awarded fellowships to study physiology and biology respectively for a period of three years at Otago continued their studies. It is hoped that they will take up posts as lecturers at the Medical School on completion of their courses.

31. *Yaws Control*—The yaws control programme which commenced in 1954, with the assistance of the World Health Organization and United Nations Children's Fund was completed in 1957, except for the re-survey of a small area in the Lau islands group. Steps will be taken to re-survey the area so far omitted and integrate future investigations with the normal work of the Department in the coming year. A further check will be combined with the work of the B.C.G. vaccination teams mentioned later in this report, but close watch for new cases will be kept by individual Assistant Medical Officers. Although the final report concerning the yaws project has not yet been completed, it can safely be said that the overall incidence, set formerly at 28 per cent, has been reduced to less than 0.5 per cent and the number of cases of infective yaws has dropped from approximately 6 per cent to less than 0.1 per cent.

32. *Central Medical School*—The World Health Organization continued to make available the services of one lecturer in biology and another in physiology and bio-chemistry and this arrangement will probably continue for a further period of two years when it is hoped that students undergoing University training in these subjects will return to Fiji to take up permanent appointments.

33. *South Pacific Commission*—Close liaison with the South Pacific Commission was maintained and the Director of Medical Services attended the meeting of the Research Committee held in Noumea in June. The Commission, in conjunction with the World Health Organization, arranged a course in Health Education over a six week period in July/August, and one Assistant Medical Officer and a Nurse attended from Fiji.

DEPARTMENTAL RESEARCH

34. *Yaws*—Mention has been made of this control project above.

35. *Filariasis*—Reference to the research by members of Her Majesty's Overseas Research Service is made above, and the summary to Mr. Symes' report on the first three years work is printed as an appendix to this report.

36. *Acute Rheumatism*—Research into the incidence, clinical cause and aetiology of rheumatic fever was carried out during the year by Dr. C. H. Gurd, Physician Specialist.

37. *Ringworm*—Clinical trials of the effects of various forms of treatment were carried out at Sigatoka, Lautoka and Labasa hospitals, but results so far have not been very encouraging.

38. *Demography*—The long-term inquiry into the demographic structure of the Fijian race undertaken by Dr. W. L. I. Verrier, continued.

III—PUBLIC HEALTH

ORGANIZATION

39. The Government activities in connexion with public health are organized and directed by the Director of Medical Services as head of the Medical Department. He is assisted at his headquarters by a Deputy Director of Medical Services, Administrative Secretary, Nursing Superintendent, Medical Statistician, Chief Health Inspector and clerical and accounting officers. The Director of Medical Services is *ex officio* Chairman of the Central Board of Health, of which the Director of Public Works is also a member. This Board advises on all health matters and holds executive powers in areas where there are no local authorities or in circumstances when a local authority defaults in its duty.

40. Twenty-two local authorities constituted under the Public Health Ordinance 1936 are responsible for carrying into effect the Ordinance and the regulations made thereunder; they are also responsible for town planning and sub-division of lands in their area. Each Divisional Medical Officer is Medical Officer of Health to the local authorities within his division.

41. For administrative purposes, the Colony is divided into four medical divisions, each of which is in the charge of a Divisional Medical Officer who is responsible for the organization of curative and preventive services in his area. He controls the work of junior Medical Officers, Health Sisters, Health Inspectors and locally trained Assistant Medical Officers, Assistant Health Inspectors and Nurses.

COMMUNICABLE DISEASES

42. Two epidemics of infectious diseases occurred during the year, the one of measles (morbilli) and the other of influenza, popularly known as Asian influenza, and caused by the variant of the influenza virus A. The incidence of other communicable diseases showed no significant change, but special mention is made of some of these below.

43. The trends in certain notifiable diseases during the last six years are shown in the following table:—

	1952	1953	1954	1955	1956	1957
Dengue	135	60	72	36	38	12
Dysentery	267	243	244	143	231	233
Enteric Group	82	35	13	26	14	25
Gonorrhoea	208	220	211	322	299	375
Infective Hepatitis	41	29	45	53	63	123
Infantile Diarrhoea	750	2,197	1,527	1,542	2,369	2,117
Influenza	4,478	3,197	8,496	5,437	5,710	12,190
Leprosy	33	40	26	19	23	24
Pertussis	773	245	422	627	471	261
Syphilis	21	23	12	48	15	26
Tetanus	38	33	45	37	38	38
Tuberculosis	453	498	489	745	610	654
Measles	7	3,179	7	9	12	7,066

of these, the following require special mention—

44. *Measles*—7,066 cases were notified during the year compared with only 12 in the year before. The epidemic was widespread throughout the Pacific island territories, but the mortality rate in Fiji was low and although complications were not uncommon, these responded well to treatment. The disease is now seen principally amongst children, and in general persons in the older age group appear to have acquired immunity.

45. *Influenza*—An epidemic of influenza occurred in August, being part of the pandemic which appears to have originated in South East Asia and reached Fiji via Singapore, Netherlands New Guinea and Australia. Although the causal organism was not isolated, it is assumed to have been the virus A variant. The epidemic was explosive in that a large number of people were affected at one time, e.g., 700 cases occurred in one day in the Vatukoula Gold Mines. The mortality rate was negligible and complications were rare. By the kind co-operation of the Australian Federal Health Authorities, sufficient vaccine was made available to inoculate key personnel at Nadi Airport and Suva and Lautoka sea ports; the vaccine appears to have been effective, at least, insofar as personnel at the airport were concerned. It was possible to inoculate airport personnel earlier than those elsewhere.

46. *Tuberculosis*—This remains as the major public health problem and steps are being taken to increase control measures. From funds made available by the Trustees of the War Memorial Anti-Tuberculosis Fund the sanatorium at Tamavua is to be enlarged by a further sixty beds and recreation and record rooms are to be added. Also the B.C.G. campaign is to be extended to cover all age groups from six months to twenty years, approximately 240,000 persons, over a three-year period.

47. A new post of Senior Medical Officer (Tuberculosis) has been created and this officer will be responsible for control measures, leaving the Medical Officer in charge of Tamavua Sanatorium free to deal with the curative aspects of the work.

48. *Poliomyelitis*—Only six cases were notified during the year of which two were imported, being taken ashore in quarantine from a visiting vessel. Of the remainder, two occurred in the Nausori area, but appeared to be unconnected, one was notified from the island of Gau and the other from the island of Cicia. Although it has not been possible to organize a serological survey, it is assumed that a large proportion of the population acquires immunity in early infancy.

49. *Infantile Diarrhoea*—Although there has been a slight fall in the number of notifications, the incidence still remains far too high. A certain number of cases are due to faulty feeding, particularly at the weaning period, but the majority are probably due to poor environmental sanitation, especially in rural areas. No seasonal variations in the number of cases notified have become apparent.

50. Efforts to improve village hygiene continue and health education of the population is being developed.

51. *Enteric Group*—The increase in incidence was due to a small outbreak of paratyphoid B which occurred in the Rewa delta area and accounted for almost half the number of cases reported.

52. *Infective Hepatitis*—The number of cases notified was double that of the previous year, but this is probably due to a greater awareness of the disease on the part of practitioners and not to a higher incidence. The disease is, in some cases, very severe and three deaths were reported from the Colonial War Memorial Hospital. The epidemiology is still obscure.

53. *Venereal Disease*—The number of cases of gonorrhoea (375 as against 299 in 1956) and syphilis (26 compared with 12 in 1956) showed an increase. It is not easy to give an explanation for this, but it is probably due to increase in urban populations and the relatively small but steady drift of young people to the towns.

54. *Malaria*—One case only was notified and he was shown to have been infected outside the Colony.

VITAL STATISTICS

55. The Registrar-General's estimates of the population of the Colony at the end of 1957 are shown at Appendix IV.

56. A census of the Colony's population was held on 26th/27th September, 1956, and the full Report has now been published as Council Paper No. 1 of 1958.

57. The average annual increase of the population for 1936/45 was 6,126, and for 1946/55 was 9,472. The marked upward trend is shown by the estimated increase of 15,301 for 1957.

58. The average annual increases for the two major races for the past decade have been:—

Fijians	..	..	..	..	..	3,885
Indians	..	..	..	..	..	5,628

59. The rates of natural increase for the whole population in the last five years have been:—

1953	..	..	..	..	..	30.97
1954	..	..	..	..	..	30.29
1955	..	..	..	..	..	29.78
1956	..	..	..	..	..	32.08
1957	..	..	..	..	..	33.78

60. Among Crude Birth Rates may be noted the following:—

			1953	1954	1955	1956	1957
Fijians	..	..	35.18	37.00	34.17	35.59	38.69
Indians	..	..	46.08	43.17	42.26	44.47	44.73
Whole Population	..	..	40.02	39.61	37.86	39.33	41.12

61. The Infant Mortality Rates for the past three years have been:—

			1955	1956	1957
Fijians	..	..	73	48	42
Indians	..	..	44	45	36
Whole Population	..	..	56	46	39

IV—HYGIENE AND SANITATION

62. As previously stated, 22 local health authorities were concerned with the administration of the Public Health Ordinance and Regulations made thereunder. The minutes of meetings of these local authorities were forwarded to the Central Board of Health for scrutiny. From time to time, advice is sought of the Board and assistance is given where necessary. This advice and assistance includes mainly the clarification of legal points encountered in the districts.

63. The return of work done by all local health authorities for the last five years includes the following figures:—

	1953	1954	1955	1956	1957
General Sanitary Inspections	56,766	42,716	78,036	71,569	92,788
Sanitary defects remedied ..	19,985	23,090	53,018	21,395	28,243
Written Notices issued ..	3,957	4,609	7,827	6,323	7,999
Closing Orders issued ..	324	57	110	92	182
Demolition Orders ..	118	212	40	20	53
Buildings demolished ..	184	35	64	42	31
Food Premises inspected ..	6,879	1,882	5,049	4,112	5,611
Improvements effected ..	1,727	461	1,047	1,350	2,082
Foodstuffs condemned in lb. .	46,363	27,696	57,445	101,712	97,209
Food samples taken ..	452	426	292	723	399

64. *Supervision of new Buildings*—Owing to various economic factors, fewer buildings were erected during the period under review than in previous years.

	1953	1954	1955	1956	1957
New Applications received	1,881	1,151	2,024	2,115	1,614
Declared Value	£858,101	£1,797,455	£2,263,460	£2,497,058	£1,581,078

65. *Legal proceedings were as follows* :—

(a) For offences under the Public Health Ordinance:—

	1953	1954	1955	1956	1957
Cases taken to Court ..	61	225	165	250	333
Convictions obtained ..	59	203	163	243	314
Penalties imposed	£149	£370	£373	£882	£997

(b) For offences under the Pure Food Ordinance:—

	1953	1954	1955	1956	1957
Cases taken to Court ..	39	42	30	40	7
Convictions obtained ..	37	41	25	35	7
Penalties imposed	£278	£366	£154	£245	£33

66. *Sewage Disposal*—The owners of new homes continue to prefer septic tanks to the dry conservation system.

	1953	1954	1955	1956	1957
Septic tank proposals passed	58	51	67	1,010	425
Latrine-slabs sold	267	452	716	601	487

67. *Garbage Disposal*—Local Authority garbage disposal systems continued to operate satisfactorily during the year.

68. *Rat Destruction*—

	1953	1954	1955	1956	1957
Number of Poison Baits set . . . . .	.....	.....	915	1,930	400
Number of traps set	4,781	12,640	9,977	9,528	4,905
Number of rats caught	934	1,875	1,720	1,203	1,944
Rats sent to Laboratory	48	78	63	58	88

No rats were found to be infected with plague.

69. *Water Supplies*—Regular inspections and examinations of Government water supplies were continued in close co-operation with the Public Works Department.

Number of samples taken—

	1953	1954	1955	1956	1957
Bacteriological test	104	179	129	612	346
Chemical test .. .. .	.....	2	.....	.....	.....
Sea Water (Public Baths) ..	13	13	20	18	22

V—SEAPORT AND AIRPORT HEALTH AND QUARANTINE

70. No change has been made in the ports of entry for overseas vessels. Suva and Lautoka remained the only ports of entry for ships from malarious areas. Cyanide fumigations are carried out at the port of Suva.

71. Medical staff carried out general quarantine measures at the International Airport at Nadi. The number of flights run by the various companies continues to increase.

72. The ports of Suva and Lautoka and the International Airport at Nadi continued to be regularly and rigorously inspected for mosquito breeding. As has been previously reported, much of the breeding was preventable, being of a domestic nature.

VI—HOSPITALS AND DISPENSARIES

73. The total number of beds available for the treatment of patients at the various hospitals in the Colony was 2,160, but of these, approximately 380 were reserved for tuberculosis cases, 622 for leprosy cases, 164 for mental cases and approximately 200 for maternity work. Thus nearly 794 beds were available for general cases or 2 beds per 1,000 of the population.

74. The Colonial War Memorial Hospital at Suva, with 298 beds fulfilled a triple function as specialist centre for the Colony, teaching hospital for medical, dental and nursing students from the Central Medical and Nursing Schools, and district hospital for the Central Division. Further details regarding this hospital are contained in Appendix V.

75. Lautoka, Labasa and Levuka hospitals with 168, 104 and 40 beds respectively served as hospital centres for the Western, Northern and Eastern Divisions. A Divisional Medical Officer was stationed at each and was responsible for the administration of the hospital and organization of the curative and preventive work of his division.

76. Fourteen rural hospitals and 47 dispensaries located at strategic points in Viti Levu and Vanua Levu and the outlying islands provided accommodation and/or out-patient treatment for patients within their environs. These units are staffed by Assistant Medical Officers, graduates of the Central Medical School, and locally trained Nurses, except in the case of Waiyevo Hospital (52 beds), Sigatoka (33 beds) and Savusavu (31 beds) which were in the charge of a Medical Officer for the whole or part of the year. The rural hospitals vary in size from 52 to 9 beds, dependent on the area served and are all of timber construction. Dispensaries also vary in size and type. A number

of dispensaries are pre-fabricated timber buildings, 12' x 12' erected on a concrete dwarf wall and floor. The unit is made up of panels 8' x 3' complete with doors, windows and essential furniture at a cost of approximately £F150 plus £F50 erection costs. The construction may be used as single or double units dependent upon the size of the population served. In other areas, dispensaries are of traditional bure type, thatched buildings, but construction and maintenance costs for these appear to be increasing and it is doubtful whether it is now worthwhile to continue with these on an economical basis.

77. The number of patients who received treatment in rural hospitals and dispensaries is shown at Appendix II (b).

78. The Tamavua Tuberculosis Hospital is situated some five miles from Suva and provided accommodation for 325 patients. The major repair and maintenance work started in 1956 was completed during the year under review and although there are a considerable number of alterations and additions to the hospital contemplated, as indicated previously in this report, the present amenities are now of reasonably high standard. The hospital as well as being the chief institution for the treatment of tuberculosis, is also the centre for the control of the disease and each week the review caucus, consisting of the Medical Officer in charge of the sanatorium, the Surgical Specialist, the Radiologist and the Senior Medical Officer in charge of records and organization, meets to consider the treatment and disposal of cases referred from the outer districts. Details of the work undertaken at the hospital are given in Appendix III.

79. The Central Leprosy Hospital, Fiji, is on the island of Makogai, some 24 miles from the coast of Viti Levu, and 65 miles from Suva. Patients from Western Samoa, the Cook Islands, Niue, the Kingdom of Tonga, the Gilbert and Ellice Islands as well as from Fiji, were under treatment, but those from the Gilbert and Ellice Islands are being gradually withdrawn as accommodation and treatment is now available in their home territory. For the same reason, it is unlikely that further patients will be received from Western Samoa. During the year, 49 patients were admitted, 38 were discharged and 8 died, but it should be added that all those who died were elderly and most were senile. At the end of the year, the number of patients was 559 of which 384 were from the Colony.

80. The Suva Sub-Station, now renamed the St. Elizabeth Home, continued to serve as a transit centre for patients waiting to proceed to Makogai for treatment and for those who had been discharged and were awaiting passage to their homes. Further, a club has been formed at the Home at which former patients can meet, their common problems discussed and advice and help given for their final rehabilitation. Details of the work done are given at Appendix VIII.

VII—DENTAL DIVISION

81. The work of the Dental Division continued to increase and the scope of activities to expand. The senior teaching staff of the division was strengthened during the year by the appointment of two Dental Officers, the one to lecture in Preventive Dentistry and the other in Dental Science subjects. The new dental clinic in Suva, which was formerly the Central Medical School, was brought into use at the beginning of the year and provided ample accommodation. New clinics were also opened up at Lautoka, Labasa and Levuka with an Assistant Dental Officer in charge of each. Further details are shown at Appendix IX.

VIII—LABORATORY DIVISION

82. The staff of the Central Laboratory, Suva, were working at full pressure during the year. A wide range of investigations was carried out and in addition to clinical pathology, bacteriology etc., required by hospitals and private practitioners, a great amount of the Pathologist's time was taken up with medico-legal work. The increasing demand for blood for transfusion purposes has further added to the work of the Laboratory staff.

83. A subsidiary Laboratory has been established at Lautoka and it is hoped, in due course, to open units at Labasa and Levuka.

84. Assistant Laboratory technicians completed training during the year. Details of this work are given at Appendix X.

IX—NUTRITION

85. The Supervising Dietitian continued to direct the activities of the housekeepers employed at the various medical institutions, and also advised officers in charge of rural hospitals on matters concerning hospital catering. The creation of this supervising post has been fully justified on grounds of economy alone as many thousands of pounds have been saved on rations since the appointment was made. Two local girls who had entered the catering course in 1956 completed training at the end of the year and will be employed as assistant housekeepers in 1958.

86. The new ration scales prepared in 1956 by the Senior Nutritionist, South Pacific Health Service and Supervising Dietitian, although not officially adopted as yet, have served as a useful guide for those responsible for catering in hospitals.

87. The Nutrition Section of the South Pacific Health Service which has its headquarters in Fiji continued to give assistance despite shortage of staff. The Nutritionist organized dietitian and catering courses and nutrition classes were given to Medical, Dental, Sanitation, Nursing and Agricultural students. Illustrated booklets on Infant Feeding were published in Fijian and Hindi and are now available. In addition, the following work was carried out in Fiji:—

88. Visits were made with Health Sisters, District Medical Officers and Education Officers to several villages and boarding schools in Fiji. In the Labasa district, a high incidence of goitre among the Indians was reported, and bulk iodized salt is now on sale in some of the large shops in the town of Labasa. Bulk iodized salt was imported into Fiji in the first instance at the request of the Nutritionist.

X—TRAINING

89. During the year 114 students were enrolled for training at the Central Medical School, of which 92 entered the medical course, 14 the dental course and 11 the ancillary course. Students are drawn from many Pacific territories including the British Solomon Islands Protectorate, Gilbert and Ellice Islands Colony, New Hebrides, Kingdom of Tonga, Western Samoa, Eastern Samoa, the Cook Islands, Niue, the United States Trust territories, Papua and New Guinea, and Nauru. The duration of the medical course is now five years, the dental course four years and the sanitation course, two years plus one year of field work in the parent territory. Training of laboratory technicians (three years), radiographers (three years) pharmacists (three years) and dietitians (two years) is also undertaken.

90. The Colonial War Memorial Hospital, the Tuberculosis Hospital, Tamavua, the Mental Hospital, Suva and the Leprosy Hospital, Makogai, provide clinical material for the medical and dental students and the Nuffield Foundation has recently made a generous grant of £15,000 to establish a Department of Preventive and Social Medicine at which both undergraduate and post-graduate training courses will be organized; the Legislature has agreed to the creation of the post of Lecturer in Public Health.

91. The day to day administration of the School is in the hands of the Principal who is assisted by two Boards, the Academic and the Advisory.

92. The Academic Board is composed of the—

Principal (Chairman)
 Director of Education
 Medical Superintendent, Colonial War Memorial Hospital
 Physician Specialist
 Surgical Specialist
 Senior Dental Officer, and
 One of the pre-clinical lecturers.

The Board meets each quarter or more frequently and assesses the progress of students, reviews the curriculum and advises on all matters related to teaching and discipline.

93. The Advisory Board consists of the—

Director of Medical Services (Chairman) (who happens also to be the Inspector-General, South Pacific Health Service)
 Director of Education
 Secretary for Fijian Affairs
 Deputy Director of Medical Services
 Medical Superintendent, Colonial War Memorial Hospital
 Principal, Central Medical School, and
 Senior Dental Officer.

94. The graduates of the School are now designated Assistant Medical Officers and Assistant Dental Officers and under new legislation introduced during the year, are registered under Part III of the Medical Register which allows of medical and dental practice while employed by the Government. Assistant Medical Officers are required to carry out a year of internship in a recognized hospital following graduation before they are registered.

95. Post-graduate training in a variety of subjects and general refresher courses are also organized.

96. At the Central Nursing School, Tamavua, the Principal, assisted by her tutorial staff, was responsible for the training of 186 students of which 21 were undertaking the New Zealand curriculum and the remainder the local course. At the Lautoka School, 85 students were in training, all on the local course. A total of 50 girls qualified during the year.

97. Some difficulty was experienced in obtaining teaching staff and those engaged in the work are to be congratulated on the results achieved despite the shortage of staff.

98. The course for Assistant Health Inspectors was re-organized somewhat during the year and a whole-time Instructor took over the School. The training of Mosquito Inspectors was discontinued and those employed solely on mosquito control will, after further instruction, be gradually absorbed into the Assistant Health Inspector cadre.

XI—DEPARTMENTAL VESSELS

99. A number of vessels are maintained and controlled by the Medical Department, amongst which are the following:—

The 42-ton A.K. <i>Vuniwai</i>	Used chiefly for carriage of staff on inspection and transfer, the transport of patients, particularly those suffering from tuberculosis and leprosy, and for the distribution of medical supplies. The vessel was also used in times of emergency to carry foodstuffs and on occasions, for the transport of special teams on survey or other research work.
The A.K. <i>Makogai</i>	as her name indicates, is the vessel used as transport for the Leprosy Settlement on the island of Makogai, and was used to convey stores, staff, visitors and discharged patients between Makogai and Viti Levu and Levuka.

II

The launch *Eileen* also based on Makogai, was used mainly for the collection of copra from various points on the island, in fishing expeditions for patients and staff and provides communication between Makogai and Levuka.

The launch *Vuniwai-ni-toba* was used for purposes of giving pratique to vessels arriving in Suva harbour, for fumigation and deratization duties and for short journeys to neighbouring islands including weekly visits to the quarantine islands of Makuluva and Nukulau.

The *Adi Makareta* which was based formerly at Wainibokasi, was transferred to Labasa for relatively short journeys within the reef. The Rewa river in which she formerly navigated has now become so silted that she was unable to fulfil her proper function.

100. Various motorized punts are either in use or on order for river and close coastal work.

XII—PHILANTHROPIC ORGANIZATIONS

101. *Fiji Lepers' Trust Board*—The Board, under the Chairmanship of Sir Hugh Ragg, continued to disburse funds allocated to Fiji by the parent body—the New Zealand Lepers' Trust Board—this allocation amounted to the generous sum of £NZ6,000.

102. The money is used to provide grants for ex-leprosy patients who for one reason or another, require financial assistance, and for various works of a capital nature on Makogai and at St. Elizabeth Home. The Physiotherapy Unit on Makogai is being enlarged from funds donated for that purpose.

103. In November, His Excellency the Governor, Sir Ronald Garvey, K.C.M.G., K.C.V.O., M.B.E., the Chairman of the Board, Sir Hugh Ragg, the Secretary, Mr. W. E. Donovan, I.S.O., and the Senior Medical Officer in charge of Makogai, Dr. D. W. Beckett, attended a conference organized by the Lepers' Trust Board, in Christchurch, New Zealand.

104. Mr. P. J. Twomey, M.B.E., J.P., Secretary of the New Zealand Board, and affectionately known throughout the Pacific region, and even farther afield, as “ the Leper Man ” through his tireless efforts to bring relief to those suffering from the disease, visited Fiji during the latter part of the year and stayed for some weeks both on Makogai and at St. Elizabeth Home.

105. *War Memorial Anti-Tuberculosis Trust Fund*—This Fund collected from voluntary contributions, is administered by a Board of Trustees of which Sir Hugh Ragg is Chairman and Mr. W. E. Donovan, I.S.O., is Secretary. The trustees have over the past years made available large sums of money for various purposes, including tuberculosis wards at Tamavua and Labasa, a mobile mass radiography machine and other items of equipment. During the year, the large sum of £32,000 was ear-marked for a tuberculosis control campaign, details of which are given elsewhere in this report.

106. *British Red Cross Society*—The Fiji Branch of the Society under the Presidency of Lady Garvey and Directorship of Sir Ragnar Hyne, was most active during the year and gave great assistance to the Department in providing diversional therapy, mobile libraries, children's clothing and toys and special equipment in hospitals and also organized a handicapped children's clinic weekly in Suva.

107. *St. John Ambulance Brigade and Association*—First-aid and Home Nursing training was continued and keenness maintained throughout the year. Since November, members of the Brigade have been manning ambulances during the night hours at the Colonial War Memorial Hospital as attendants. This service is entirely voluntary and so efficient has been the organization, that no break in the service has yet been recorded. The value of the service given has been proved beyond doubt on several occasions.

108. The Brigade has also provided first-aid units at football matches, public meetings, etc., during the year and the excellent work carried out has been demonstrated by the good condition in which those injured and susceptible to first-aid treatment, have reached the hospitals.

109. *Home of Compassion*—The Home of Compassion staffed by Marist Sisters accepts aged ladies who for some reason or another, require some degree of nursing care. The institution is excellently run and fulfils a very real need.

110. *The Cottage Home*—This home for aged people is supported by public subscription and also is well organized and of great importance to the welfare of the elderly.

111. *Mercy Flights*—It is fitting that tribute should be paid to the officers and men of the Royal New Zealand Air Force for the ready response given to all calls upon their services in times of emergency. On a number of occasions throughout the year, flights have been undertaken to remote islands to pick up persons badly injured or seriously ill, who require specialist treatment. This service, given with speed and efficiency, has done much to raise morale amongst those living far away from fully equipped hospitals and a number of lives have been saved.

XIII—METEOROLOGY

112. Summaries of the meteorological observations for 1957 are given at Appendix XVIII. For these, I am indebted to the Meteorological Officer at Laucala Bay, Suva.

P. W. DILL-RUSSELL,
Director of Medical Services.

APPENDIX I

DEPARTMENTAL ESTABLISHMENT

1957

1. MEDICAL AND ADMINISTRATIVE SECTION—							
Director of Medical Services	..	..	..	..	..	..	1
Deputy Director of Medical Services	..	..	..	..	..	..	1
Secretary	..	..	..	..	..	..	1
Senior Medical Officers	..	..	..	..	..	..	5
Physician Specialist	..	..	..	..	..	..	1
Surgeon Specialist	..	..	..	..	..	..	1
Surgeon	..	..	..	..	..	..	1
Medical Officers	..	..	..	..	..	..	15
Ophthalmologist	..	..	..	..	..	..	1
Radiologist	..	..	..	..	..	..	1
Dental Surgeons	..	..	..	..	..	..	2
Pathologist	..	..	..	..	..	..	1
Anaesthetist	..	..	..	..	..	..	1
Assistant Medical Officers	..	..	..	..	..	..	124
Assistant Dental Officers	..	..	..	..	..	..	12
2. NURSING SECTION—							
Nursing Superintendent	..	..	..	..	..	..	1
Matrons and Assistant Matrons	..	..	..	..	..	..	6
Sisters in Charge	..	..	..	..	..	..	3
Nursing Sisters	..	..	..	..	..	..	54
Health Sisters	..	..	..	..	..	..	13
Principal (1) Tutors (6) Nursing School	..	..	..	..	..	..	7
Nurses	..	..	..	..	..	..	368
3. TECHNICAL SECTION—							
Laboratory Superintendent	..	..	..	..	..	..	1
Chief Laboratory Assistant	..	..	..	..	..	..	1
Laboratory Assistants	..	..	..	..	..	..	13
Chief Health Inspector	..	..	..	..	..	..	1
Health Inspectors (11) Assistant Inspectors (23)	..	..	..	..	..	..	34
Government Pharmacists (3) Assistants (4)	..	..	..	..	..	..	7
Radiographers (3) X-Ray Assistants (4)	..	..	..	..	..	..	7
Supervising Dietitian	..	..	..	..	..	..	1
Dental Mechanics	..	..	..	..	..	..	2
4. CLERICAL SECTION—							
Clerical Staff	..	..	..	..	..	..	52
5. SUPERVISORY SECTION—							
Mental Hospital, Attendants (2) Orderlies (20)	..	..	..	..	..	..	22
Caretaker, Quarantine Island	..	..	..	..	..	..	1
Carpenters (3) Engineers (3) Storekeepers (3)	..	..	..	..	..	..	9
Occupational Instructor	..	..	..	..	..	..	1
Housekeepers (6) Laundry (2) Seamstress (1)	..	..	..	..	..	..	9
Subordinate staff	..	..	..	..	..	..	493
6. CENTRAL MEDICAL SCHOOL—							
Principal	..	..	..	..	..	..	1
Medical Officer	..	..	..	..	..	..	1
Anatomy and Surgery Lecturer	..	..	..	..	..	..	1
Science Lecturer	..	..	..	..	..	..	1
Dental Officers (2) Dental Mechanic (1)	..	..	..	..	..	..	3
Dental Hygienist	..	..	..	..	..	..	1
Assistant Medical Officer	..	..	..	..	..	..	1
Housekeeper (1) Clerical staff (3) Servants (17)	..	..	..	..	..	..	21
Laboratory Attendants	..	..	..	..	..	..	3
7. FIJI LEPROSY HOSPITAL—							
Senior Medical Officer	..	..	..	..	..	..	1
Clerical Staff	..	..	..	..	..	..	2
Overseer (1) School teachers (2) Constables (4)	..	..	..	..	..	..	7
Bakers (4) Labourers and Servants (30)	..	..	..	..	..	..	34
Nursing Sisters	..	..	..	..	..	..	23
Assistant Nursing Sisters	..	..	..	..	..	..	11
8. MALARIA PREVENTION AND FILARIASIS CONTROL—							
Surveyor in Charge	..	..	..	..	..	..	1
Inspectors and Assistants	..	..	..	..	..	..	72
9. CENTRAL MEDICAL RESEARCH LIBRARY—							
Librarian	..	..	..	..	..	..	1
Clerical Staff	..	..	..	..	..	..	1

APPENDIX II (a)

HOSPITALS AND DISPENSARIES

									<i>Beds</i>
MAIN AND SPECIALIST HOSPITALS—									
Colonial War Memorial Hospital, Suva	..	..	..	..	..	..	..	298
Tamavua Tuberculosis Hospital, Suva	..	..	..	..	..	..	..	321
Mental Hospital, Suva	..	..	..	..	..	..	..	164
Fiji Leprosy Hospital, Makogai	..	..	..	..	..	..	..	622
DISTRICT HOSPITALS—									
Lautoka	..	..	..	..	..	..	..	168
Labasa	..	..	..	..	..	..	..	104
Levuka	..	..	..	..	..	..	..	40
SUBSIDIZED HOSPITALS—									
Methodist Mission Hospital, Ba	..	..	..	..	..	..	..	41
Cottage Hospital, Ba	..	..	..	..	..	..	..	6
Private Hospital, Colonial Sugar Refining Company, Ba	..	..	..	..	..	..	..	12
RURAL HOSPITALS—									
Nailaga, Ba	..	..	..	..	..	..	..	20
Wainibokasi	..	..	..	..	..	..	..	51
Waiyevo, Taveuni	..	..	..	..	..	..	..	52
Vunidawa	..	..	..	..	..	..	..	30
Koromumu, Sigatoka	..	..	..	..	..	..	..	33
Vaileka, Rakiraki, Ra	..	..	..	..	..	..	..	19
Nadi	..	..	..	..	..	..	..	34
Savusavu	..	..	..	..	..	..	..	31
Vunisea, Kadavu	..	..	..	..	..	..	..	24
Lomaloma, Lau	..	..	..	..	..	..	..	16
Rotuma	..	..	..	..	..	..	..	16
Lakeba, Lau	..	..	..	..	..	..	..	19
Matuku	..	..	..	..	..	..	..	9
Nabouwalu, Bua	..	..	..	..	..	..	..	30
Total number of beds available								2,160	

See Appendix II (b) for details of out-patients.

See Appendix II (b) for details of in-patients.

DISPOSITION OF URBAN AND RURAL DISPENSARIES

In Suva—

Suva Gaol
 Samabula
 Tamavua Out-patients (General) Dispensary

Central Division (under District Medical Officer)—

Beqa Island	Nausori Clinic
Korovou, Tailevu North	Navua
Lodoni	Nayavu
Lomanikoro	Korovisilou
Mokani	Viria
Namosi	

Eastern Division—

Gau	Koro
Kabara	Moala
Ono-i-lau	Yaro, Kadavu

Western Division (under District Medical Officer, Lautoka)—

Korolevuiwai	Natuatuacoko
Nadarivatu	Naviti, Yasawa
Nadi Airport (administered from (Suva)	Sautabu
Namari	Tau
Nanukuloa	Tavua
Nasau	Vatukoula

Northern Division (under District Medical Officer, Labasa)—

Dreketi	Visoqo
Lekutu	Wainikoro
Naduri	Wainunu
Kioa Island	Rabe Island Community
Natewa	Saqani
Tukavesi	

Total Rural Dispensaries—43

See Appendix II (b) for details of out-patients.

APPENDIX II (b)

The following tables show the analyses of in-patients and out-patients for the year 1957.

1. CENTRAL AND DISTRICT HOSPITALS ADMISSIONS—RACIAL DISTRIBUTION

Race	C.W.M. Hospital	Tamavua	Lautoka	Labasa	Levuka	Totals
Fijians	1,387	1,584	1,069	516	653	5,209
Indians	1,982	333	2,747	1,254	88	6,404
Europeans	550	43	212	51	91	947
Chinese and Others	181	148	180	11	61	581
Totals	4,100	2,108	4,208	1,832	893	13,141

2. OUT-PATIENTS THROUGHOUT THE COLONY

Race	C.W.M. Hospital	3 District Hospitals	14 Rural Hospitals	Rural Dispensaries	Totals
Fijians	18,841	16,196	56,064	159,985	251,086
Indians	22,491	21,644	44,942	60,371	149,448
Europeans and Part-Europeans	174	2,730	....	....	2,904
Chinese and Others	144	2,562	3,775	22,059	28,540
Totals	41,650	43,132	104,781	242,415	431,978

3. GENERAL AND RURAL HOSPITALS—ADMISSIONS

Hospitals	No. of Beds	Patients Admitted
Colonial War Memorial Hospital	298	4,100
Tamavua Tuberculosis Hospital	321	705
Three District Hospitals	312	6,933
Fourteen Rural Hospitals	2,160	9,208
Totals	3,091	20,946

The mean annual turnover of each hospital bed is, for the Tuberculosis Hospital, two patients, and for other hospitals, seven patients

4. COLONIAL WAR MEMORIAL HOSPITAL—OUT-PATIENTS, SUVA AREA

Department Attended	Fijians	Indians	Europeans	Others	Totals
European Medical Officer .. .. .	....	....	....	....	11,224
Dental Department	4,212	5,656	1,741	1,443	13,052
Eye Department	1,625	2,886	205	551	5,267
Ante-natal	9,593	6,672	4,306	....	20,571
Free Out-Patients	18,841	22,491	174	2,816	44,322
Totals	34,271	37,705	6,426	4,810	94,436

APPENDIX III

TUBERCULOSIS DIVISION—1957

The year 1957 saw the completion of Tamavua Hospital's eleventh year as the Colony's main tuberculosis hospital. With 325 beds, it is also the largest hospital in the Colony.

2. Recent comparative figures are set out below:

	1947	1951	1952	1953	1954	1955	1956	1957
Inpatients at 31st Dec.	153	220	241	270	304	403	320	325
Admissions	269	220	257	360	487	513	482	705
Discharges	183	118	137	248	373	465	392	412
Deaths	64	86	46	53	42	27	29	26
Out-patients .. ..	.....	832	1,285	1,756	2,048	2,227	2,790	3,620

3. The beds were occupied at 31st December, 1957, by 258 Fijians, and 38 Indians, and others to a total of 325. Fijians therefore on that date occupied 79 per cent of the hospital's beds; and the proportion of Fijians to Indians was $4\frac{1}{2}$ to 1. There are on an average, 36 children under 15 years in hospital at any time. Of the 705 admissions in 1957, 105 were re-admissions.

4. Of the 26 deaths in 1957, 24 were due to tuberculosis, of whom 19 were Fijian, three Indian and four other races.

5. At the close of the year there were 75 patients awaiting admission to the Tamavua Hospital, which is about an average figure. Of these more than 75 per cent were already in a hospital bed elsewhere, and were receiving appropriate treatment.

6. Of the 3,620 persons attending out-patients department, 1,277 were for chest X-Ray only, while 2,343 (65%) needed full assessment, including chest X-Ray, sputum tests, blood sedimentation, and full history and clinical examination.

7. The registration and filing of Out-patient Records and X-Ray films, both from Tamavua Hospital and from outside institutions, was re-organized during the year by the Senior Medical Officer (Statistics and Organization) and his staff. The index of patients' names has been standardized and old films held anywhere in the Colony are sought and collated with recent records.

8. Two thousand seven hundred and twenty-three films from outside were received at Tamavua and reported on during the year. Of these, 1,272 were new cases which were reported on by the Radiologist who attended for two morning sessions weekly. One thousand four hundred and fifty-one were "old cases" known to the records and were dealt with by the staff as routine reviews. One hundred and three cases in which the Radiologist considered there were indications of tuberculosis were referred to the Medical Officer in Charge and brought up by him to the weekly Chest Consultation ("The Caucus") for discussion of disposal and treatment.

9. Ten thousand Tamavua Hospital reports were sent out in the course of 1957, being about 40 for each working day of the year.

10. All tuberculosis reports and other documents pass through a Tuberculosis Registry at Departmental Headquarters, which collates all records and distributes them to those in medical charge of patients, and assumes the duty of securing due follow-up and review examinations. The records of any patient, wherever he may be seen, are collated.

11. During 1957, the decision was taken to transfer major chest surgery to the Colonial War Memorial Hospital, and only two cases (apicolysis and plombage) were treated surgically at Tamavua in 1957.

12. Thirty-two patients received major chest surgery in 1957, when procedures undertaken were pneumonectomy, lobectomy, segmental resection, decortication, thoracoplasty, and apicolysis with polythene-ball plombage. Phrenic-nerve crush and other minor procedures are done at Tamavua.

13. The Dental Clinic which had been equipped by the War Memorial Anti-Tuberculosis Trust Fund is operated by the Dental Division of the Department and during 1957 performed six scalings, 50 fillings, and 28 other treatments as well as 130 extractions.

14. An Occupational Therapy Department has been fully equipped by the Trust Fund, and has a full-time staff of two men. It is fully used by male and female patients.

15. Many entertainments of a special kind as well as the weekly film shows were given to the patients during the year.

16. The farm and plantation has been improved by purchase of a Ferguson tractor and equipment. Farm produce in 1957, a year of incomplete cultivation, was valued at £500. Twenty one thousand two hundred and forty-three eggs valued at £673 were produced by the poultry-yard, and chickens valued at £182 were provided for the Christmas dinner.

APPENDIX IV

FILARIASIS

It has not been possible to reproduce here anything but the summary of the report prepared by Mr. C. B. Symes, O.B.E., of Her Majesty's Overseas Research Service on the work carried out by him from 1954-1956 on the natural history of human filariasis in Fiji. The report is extensive and detailed and should be read in the original.

2. Sixteen species of mosquitoes have been recorded in this study. Data are presented on their breeding, distribution and prevalence, and the manner and degree of their contact with people.

3. Four species—

Aedes pseudoscutellaris

Aedes polynesiensis

Aedes fijiensis

Culex fatigans—appear to be concerned in the transmission of filariasis *W. bancrofti* (Pacific form). The first three exhibit about equal degrees of vector potential, as determined by laboratory infections. *C. fatigans* is of a lower order but its wide distribution and large numbers probably balance this lower potential.

4. The development period of *W. bancrofti* in *Culex fatigans* is usually about two days more than the period in the other three species. Development appears to be slower during periods of lower temperatures.

5. *C. annulirostris*, *A. aegypti*, *A. vexans* and *C. sitiens* are intolerant to the development of *W. bancrofti* in them. The majority of microfilariae taken up by them die before or during the first stage of development. The tolerance to developing infection of *A. horrescens* has yet to be determined, if its distribution and numbers warrant the effort.

6. Evidence is given indicating a broad relationship between the density of microfilariae in the blood of donors and the amount of infection in vector mosquitoes fed upon them. It is also shown that mosquitoes may become lightly infected after feeding upon people in whose blood microfilariae have not been found by the ordinary methods of examination.

7. Infection of *W. bancrofti* in the legs of *A. pseudoscutellaris* are apparently not of great significance. Other species have not been examined.

8. Some data are presented suggesting that when *A. pseudoscutellaris* feeds upon blood containing large numbers of microfilariae, it retains in the blood in its stomach immediately after the feed, greater numbers of microfilariae than would be expected in an equivalent amount of blood taken from the donor. It is also probable that during the first 12-24 hours after the feed some fifty per cent of the microfilariae in the stomach are excreted.

9. Incidence and intensities of infection in people in the areas studied are shown. Inadequacies in microscopical determination of the presence and numbers of microfilariae in blood are indicated. It is considered that the incidence of the infection in the population sampled is in the region of 30 per cent, and that the incidence of clinical filariasis only is about five per cent.

10. Incidence and intensity of infection by age groups follows roughly the usual pattern—low levels in the early age groups increasing to high levels in the 30 years and over. About four per cent of the 0-4 age group had microfilariae in the blood, the youngest being between one and two years.

11. Evidence on racial distribution of infection is inadequate; but it is suggested that any differences in incidence or intensity in the various races result from environmental factors and not from differences in tolerance or "resistance" to the infection.

12. Observations on the numbers of microfilariae in blood over 24 hours confirm the frequent fluctuations in numbers, and suggest a tendency to a peak in numbers in the afternoon or evening.

13. The short term effects of various dosages of Hetrazan on the numbers of microfilariae in the peripheral blood are submitted.

14. Some preliminary experiments are reported—

i. on the elimination of *A. pseudoscutellaris* and *A. polynesiensis* by removal of breeding facilities around villages;

ii. or control of crabs with insecticides;

iii. on the effect of "residual" deposits of insecticides in Fijian houses on (day population) of *Aedes fijiensis* and *Culex fatigans*.

Suggestions are made for continuations of study, including field experiments.

15. Brief notes are submitted on the mosquito vectors of the dog filaria (*Dirofilaria immitis*) and on the life history of a filaria discovered in fruit bats (*Pteropus hawaiiensis*).

APPENDIX V

COLONIAL WAR MEMORIAL HOSPITAL, SUVA

General—The plan of re-organization and re-furnishing of the hospital started in 1956, has been followed and considerable progress has been made.

2. The internal maintenance which had been neglected for so long was well under way and wards began to take on a new look.

3. The Non-Paying Out-Patient Department was moved from its dilapidated quarters to the old dental clinic which had been thoroughly maintained, internally re-designed and decorated. Although this Out-Patient Department is still too small, it is considerably better than the old premises and allows a Medical Officer and two Assistant Medical Officers to work in comfort as against one Assistant Medical Officer in discomfort in the old premises.

4. The grounds of the hospital have been considerably improved by tarmacadamizing all the internal roads and turning the area between the new dental clinic and the main hospital into lawn.

5. The bachelor Assistant Medical Officers' quarters are in process of being extensively maintained and altered to provide better teaching facilities and better living conditions for the Assistant Medical Officers.

6. *Private Rooms*—An effort is being made to interest private bodies in the re-furnishing of the private rooms, and to date, four out of five of the rooms are scheduled for re-equipment.

7. *Staff General*—The hospital has in the past suffered from a constant change of staff, and 1957 has been notable in that this trend has been reversed at the Medical Officer and Assistant Medical Officer level, and to a lesser extent at the Staff Nurse level. Stability of staff is essential in a big hospital to reduce the number of "learners" to the minimum.

8. *Administration*—Dr. C. H. Gurd, Physician Specialist, returned from leave in April and acted as Medical Superintendent during the illness of Dr. H. E. Knowles, and in July was asked to take over the administration of the hospital from Dr. Knowles who had asked to be relieved of it.

9. The Steward and Clerk, Mr. H. M. Boulton, resigned his appointment on November 18th and was replaced by Mr. A. K. Sutherland.

10. *Medical Staff*—

Dr. C. H. Gurd	Physician Specialist
Dr. P. W. Downes	} Senior Registrars
Dr. P. B. Thompson	
A.M.O. S. Govendar	} Junior Registrars
A.M.O. I. Bakani	

One House Physician—one intern.

11. *Surgical Staff*—

Mr. R. I. Cohen	Surgeon Specialist
Dr. J. L. M. de Beaux	Senior Registrar
A.M.O. Etika	} Junior Registrars
A.M.O. Baravilala	

One House Surgeon.

12. *Visiting Surgeons*—

Professor Kellar	Edinburgh
Professor Wells	Liverpool
Professor Wheeler	Belfast

13. *Anaesthetics*—

Dr. L. A. Phillips	Anaesthetic Specialist
A.M.O. Semesa Seruvatu	} Registrars
A.M.O. Lorima Batirerega	

14. *Eye Department*—

Dr. P. J. Daly	Ophthalmologist—resigned
A.M.O. Tomu Uluilakeba	Senior Registrar
A.M.O. S. V. Buadromo	Junior Registrar

15. *Out-Patients Department*—

Dr. Elizabeth Knowles	Medical Officer i/c Three interns in rotation
-----------------------------	--

16. *Radiology*—

Dr. H. E. Knowles	Specialist Radiologist
A.M.O. K. Lal	Registrar
Mr. George Stephens	Senior Radiographer
Mr. Robert Young	Junior Radiographer

17. *Paying Out-Patients*—An Out-Patient Clinic was held each morning from 8.30 a.m. onwards. A Medical Officer was in attendance and a total of 11,224 patients were seen.

18. Specialist Out-Patient clinics were held as follows:—

Medical Out-Patient	..	..	Monday and Friday afternoons
Surgical Out-Patient	..	..	Tuesday and Thursday afternoons
Fracture Clinic	..	..	Wednesday afternoons.

19. *Non-Paying Out Patients*—This service was greatly improved and expanded during the year by the introduction of the new building. This department now deals with non-paying out-patients, all casualty and admissions and is open for 24 hours a day. The staff now includes a Medical Officer, three Assistant Medical Officers, a Nursing Sister and nursing staff. A total of 44,322 patients were seen.

<i>Europeans</i>	<i>Fijians</i>	<i>Indians</i>	<i>Others</i>	<i>Total</i>
174	18,841	22,491	2,816	44,322

20. *Maternity Paying Annex*—The staff situation on December 31st, 1957, was satisfactory.

- 1 Sister in Charge
- 3 Ward Sisters
- 9 Fijian and 1 Indian Staff Nurse—10 in all.
- 2 Ward Maids.

21. Figures for the year ending December 31st, 1957:—

Admissions	..	..	..	..	..	374
Discharges	..	..	..	..	..	376
Normal labours	..	..	..	..	..	200
Abnormal labours	..	..	..	..	..	122
Still-births	..	..	..	..	..	7
Neonatal deaths	..	..	..	..	..	1
Maternal deaths	..	..	..	..	..	0
Caesarian sections	..	..	..	..	..	15
Anti-partum haemorrhages	..	..	..	..	..	4
Post-partum haemorrhages	..	..	..	..	..	22
Secondary post-partum haemorrhages	..	..	..	..	..	1
Retained placenta	..	..	..	..	..	1
Placenta praevia	..	..	..	..	..	2
Anaemia	..	..	..	..	..	1
Toxaemia	..	..	..	..	..	5
Hyperemesis gravidarum	..	..	..	..	..	6
Instrumental deliveries with general anaesthetic	..	..	..	..	..	11
Instrumental deliveries low mid forceps with Trilene	..	..	..	..	..	47
Breech presentation	..	..	..	..	..	4
Persistent occipito-posterior	..	..	..	..	..	6
Hand presentation	..	..	..	..	..	2
Number of babies	..	..	..	..	..	325
Number of females	..	..	..	..	..	153
Number of males	..	..	..	..	..	172
Talipes	..	..	..	..	..	2
Hypospadias	..	..	..	..	..	1
Hydrocephalic	..	..	..	..	..	2

22. *Non-Paying Maternity Annex*—The staff situation on December 31st, was as follows:—

- 1 Sister in Charge
- 3 Sisters for Wards
- 4 Nurses.

23. Figures for the year ending December 31st, 1957:—

			<i>Fijian</i>	<i>Indian</i>	<i>Others</i>	<i>Total</i>
<i>Ante-natal Clinic</i> —						
First visits	..	..	699	1,887	101	2,687
Return visits	..	..	3,607	7,706	6,571	17,884
Total		..	4,306	9,593	6,672	20,571
Number of patients at end of						
previous year	..	..	4	19	....	23
Admissions	..	..	667	1,385	133	2,185
Discharges	..	..	667	1,383	132	2,194
Deaths	..	..	....	3	....	3
Number of patients remaining						
at end of year	..	..	4	9	1	14
Admitted—not in labour	..	..	34	158	9	201
Normal labour	..	..	517	983	117	1,617
Abnormal labour	..	..	123	155	5	283
Total confinements	..	..	640	1,138	122	1,900
Live births	..	..	629	1,086	117	1,832
Premature births	..	..	16	63	4	83
Multiple births	..	..	5	14	....	19
Still-births	..	..	14	53	1	68
Total viable infants born alive or						
dead	..	..	643	1,139	118	1,900
Neo-natal infant deaths	..	..	12	24	2	38

	<i>Fijian</i>	<i>Indian</i>	<i>Others</i>	<i>Total</i>
<i>Maternity Morbidity—</i>				
Anaemia		76	....	76
Pre-eclamptic toxæmia .. 13		53	2	68
Eclampsia		7	....	7
Puerperal pyrexia .. 37		85	1	123
Hyperemesis gravidarum		4	....	4
Pyelitis of pregnancy		1	....	1
<i>Abnormal Labour—</i>				
Ante-partum hæmorrhage .. 5		33	1	39
Post-partum hæmorrhage .. 60		35	....	95
Placenta prævia	2	6	....	8
Instrumental	14	17	....	31
Caesarean section	7	11	....	18
Persistent occipito-posterior .. 14		14	....	28
Breech presentation	13	28	2	43
Face presentation	2	1	....	3
Brow presentation .. .. .	....	....	....	....
Retained placenta	5	6	1	12
<i>Other abnormal labour—</i>				
Decapitation .. .. .	....	1	....	1
Prolapsed uterus .. .. .	....	1	....	1
Prolapsed cervix	1	....	....	1
Prolapsed cord .. .. .	....	2	....	2
Ruptured uterus .. .. .	....	1	....	1
<i>Congenital Malformations—</i>				
Monsters	1	2	....	3
Cleft Palate .. .. .	....	1	....	1
Talipes	1	1	....	2
Anecephalus .. .. .	....	2	....	2
<i>Other Congenital Malformations—</i>				
Imperforate Anus .. .. .	....	1	....	1
Anthrycryposi Multiplex .. .. .	....	1	....	1
Trachæo-Oesophageal Fistula .. .. .	....	1	....	1
Spina Bifida .. .. .	....	3	....	3
24. X-Ray Department—				
<i>Examinations</i>	<i>Europeans</i>	<i>Fijians</i>	<i>Indians</i>	<i>Others</i>
In-patients	401	1,682	1,674	330
Out-patients	1,029	1,029	2,125	454
Total number of patients X-Rayed—9,631				

This is a slight reduction in the total number of patients for the last few years. The work, however, has increased owing to the great reduction in miniature films taken in the department and the increase in special examinations which include:—

Intravenous pyelography	152 cases
Barium meals	229 „
Barium enemas	53 „
Heart screenings and Barium swallow	157 „
Retrograde pyelography	26 „
Cholecystography	104 „
Bronchography	33 „
Cystography	4 „
Myelography	3 „
Salpingography	4 „
Placentography	1 „
Splenography	1 „
Retroperitoneal pneumography	4 „
Sialography and Sinography	6 „

25. Surgery—				
Total number of patients	1,487			
Total number of operations	1,597			
Thoracic Surgery Total	69			
Thoracotomy	10			
Apicolysis (Plombage)	17			
Thorocoplasty	1			
Pneumonectomy	9			
Lobectomy	4			
Decortication of lung	1			
Bronchoscopy	15			
Others	2			
Oesophageal atresis (congenital)	2			
Mitral valvulotomy	5			
Blalock-Tussig operation	1			
Pericardectomy	1			
Cardiac massage (for arrest during anaesthesia anaesthesia induction)	1			

Gastro-Intestinal Surgery Total	194
Appendicectomy	75
Laparotomy	15
Cholecystectomy	10
Gastro-enterostomy	11
Reduction of intussusception	3
Ramstedt operation	4
Oversewing of perforated ulcer	6
Partial gastrectomy	11
Partial gastrectomy trans-thoracic	1
Oesophago-jejunostomy trans-thoracic	1
Oversewing traumatic bowel injury	3
Haemorrhoidectomy	12
Choledoco-duodenostomy	1
Sigmoidoscopy	4
Hemi-colectomy	3
Others	34
Vascular Surgery Total	24
Removal of haemangioma	7
Splenectomy	3
Anastomosis for femoral aneurysm	1
Ligation of blood vessels	11
Ligation of aneurysm	1
Repair of brachial artery	1
Plastic Surgery Total	36
Repair of hare lip	12
Repair of cleft palate	1
Skin grafting	9
Excision of keloid scar	2
Removal of warts	12
Gynaecological Surgery Total	242
Dilatation and Curettage	91
D. & C. with biopsy or cautery	28
Caesarian section	28
Oophorectomy	7
Total hysterectomy	5
Sub-total hysterectomy	1
Vaginal hysterectomy	1
Sterilization	22
Removal of ovarian tumour	12
Oversewing of ruptured ectopic gestation	7
Colporrhaphy	2
Ventro-suspension	10
Hysterectomy	3
Myomectomy	7
Repair of ruptured uterus	4
Others	14
Orthopaedic Surgery Total	74
Manipulation of dislocated or fractured limbs	9
Amputation of limbs	14
Open reduction of fractured bones	5
Sequestectomy	10
Insertion of Kirschner wires	3
Arthrodesis of joints	2
Excision of bursa	4
Repair of severed tendons	5
Osteotomy	1
Others	21
Ear, Nose and Throat Surgery Total	135
Tonsillectomy and Adenoidectomy	50
Tracheotomy	4
Antral proof puncture	12
Laryngoscopy	12
Removal of nasal polyp	12
Mastoidectomy	3
Diathermy to turbinates	26
Others	13

Genito-Urinary Surgery Total	..	..	..	..	155
Cystoscopy .. ..	..	..	..	..	52
Cure of hydrocele ..	..	..	..	..	45
Orchidectomy .. ..	..	..	..	..	6
Nephrectomy .. ..	..	..	..	..	5
Nephro-lithotomy ..	..	..	..	..	2
Prostatectomy .. ..	..	..	..	..	13
Ureto-lithotomy ..	..	..	..	..	2
Supra-pubic cystotomy ..	..	..	..	..	12
Cysto-lithotomy ..	..	..	..	..	2
Urethral bougies ..	..	..	..	..	6
Others .. ..	..	..	..	..	10
Hernia Repairs Total	..	..	..	..	79
Herniorrhaphy .. ..	..	..	..	..	27
Herniotomy .. ..	..	..	..	..	8
Hernioplasty .. ..	..	..	..	..	30
Incisional hernia repair ..	..	..	..	..	3
Umbilical hernia repair ..	..	..	..	..	2
Diaphragmatic hernia repair ..	..	..	..	..	1
Ventral hernia repair ..	..	..	..	..	3
Strangulated hernia repair ..	..	..	..	..	5
Thyroid Surgery Total	..	..	..	..	15
Partial thyroidectomy ..	..	..	..	..	11
Adenoma thyroid .. ..	..	..	..	..	4
Neurosurgery Total	..	..	..	..	11
Myelogram .. ..	..	..	..	..	2
Excision of meningocele ..	..	..	..	..	1
Exploration of nerve ..	..	..	..	..	2
Nerve block .. ..	..	..	..	..	1
Insertion of skull traction ..	..	..	..	..	3
Nerve suture .. ..	..	..	..	..	2
Breast Surgery Total	..	..	..	..	7
Simple mastectomy .. ..	..	..	..	..	1
Radical mastectomy .. ..	..	..	..	..	2
Adenoma of breast .. ..	..	..	..	..	3
Biopsy from breast .. ..	..	..	..	..	1
Radium Therapy Total	..	..	..	..	43
Insertion and removal of radium ..	..	..	..	..	43
Minor Surgery Total	..	..	..	..	141
Wound toilets .. ..	..	..	..	..	25
Abscess opening .. ..	..	..	..	..	30
Others .. ..	..	..	..	..	86
26. Anaesthesia—Total	..	..	..	..	1,451
Local .. ..	..	..	..	..	451
Epidural or caudal block ..	..	..	..	..	34
Inhalation anaesthesia ..	..	..	..	..	578
Relaxant anaesthesia .. ..	..	..	..	..	255
Regional block with light inhalation cover ..	..	..	..	..	76
Open ether .. ..	..	..	..	..	57
27. Minor Operating Theatre—Opened August, 1957.					
Total number of patients	..	..	..	..	122
Minor Surgery such as removal of Cysts and Abscess Incisions.					
28. Plaster Room—Total number of patients 872.					
29. Eye Department—Number of out-patients during 1957—					
<i>Fijians</i>	<i>Indians</i>	<i>Europeans</i>	<i>Others</i>	<i>Total</i>	
1,625	2,886	205	551	5,267	
30. Major Operations—					
Ophthalmic Surgery Total	..	..	..	..	362
Extraction of cataract lens ..	..	..	..	..	177
Removal of pterygium .. ..	..	..	..	..	31
Plastic to eyelids .. ..	..	..	..	..	34
Iridectomy .. ..	..	..	..	..	15
Correction of strabismus ..	..	..	..	..	9
Evacuation of chalazion. ..	..	..	..	..	4
Enucleation .. ..	..	..	..	..	13
Evisceration .. ..	..	..	..	..	5
Needling .. ..	..	..	..	..	24
Dacrocystitis .. ..	..	..	..	..	8
Diathermy to eyelids .. ..	..	..	..	..	8
Others .. ..	..	..	..	..	34

31. <i>Minor Operations</i> —Total	..	..	..	..	..	325
Pterygium .	..	..	..	..	..	108
Chalazion .	..	..	..	..	..	45
Incision of dacrocystitis .	..	..	..	..	..	1
Incision of lid-abscess	..	..	..	..	..	12
Incision of hordeolum	..	..	..	..	..	13
Excision of granulation (cons)	..	..	..	..	..	7
Entropion (plastic)	..	..	..	..	..	3
Syringing of tear-duct	..	..	..	..	..	37
Removal of corneal foreign body	..	..	..	..	..	78
Suturing of conjunctival wound	..	..	..	..	..	1
Suturing of lid	..	..	..	..	..	1
Diathermy to lids	..	..	..	..	..	8
Epilation	..	..	..	..	..	3
Conjunctival scrapings	..	..	..	..	..	3
Probing of lacrymal duct	..	..	..	..	..	2
Needling of Cataract	..	..	..	..	..	1
Subconjunctival injection of cortisone	..	..	..	..	..	2

32. *Nursing Sisters*—The numbers of Nursing Sisters for the Colonial War Memorial Hospital on December 31st, 1957, were as follows:—

- 1 Matron
- 1 Assistant Matron
- 2 Sisters for Operating Theatre
- 1 Sister for Ophthalmic Department
- 2 Sisters for Out-Patients Departments
- 2 Sisters for night duty (Special duty)
- 2 Sisters for afternoon supervising (Special duty)
- 8 Sisters for wards.

33. *Nurses*—The number of trained Nurses for the Colonial War Memorial Hospital on December 31st, 1957, were as follows:—

- 2 Nurses for Operating Theatre
- 1 Nurse for Ophthalmic Department
- 19 Nurses for Wards
- 3 Nurses for Out-Patients Departments
- 1 Nurse for Dental Department.

34. *Laundry Department*—Two Supervisors, 28 Laundresses, 10 Men (one reliever). The Laundry is worked in shifts, morning and afternoon. Total number of linen for 1957, 1,445,462 articles. Owing to the opening of the Laundry at the Tamavua Hospital, Central Nursing School, in March, two men and two laundresses were transferred to the Tamavua Laundry. The Tamavua Laundry is responsible for the laundry of the Central Nursing School and the linen and shorts only of the Central Medical School.

35. *Sewing Room*—This department is responsible for the making of all articles in the Colonial War Memorial Hospital.

Articles made in 1957	..	..	..	..	20,573
Repaired	..	..	..	..	29,126

Staff—

- 1 Head Seamstress
- 4 Assistant Seamstresses

APPENDIX VI

MENTAL HOSPITAL

In November, 1957, the Hospital was visited by Dr. Cunningham-Dax of Melbourne. It is expected that he will make various suggestions on the future management of Mental Hygiene in Fiji.

2. Occupational therapy was revived in the Hospital during the year. Interest in the subject is gradually increasing. The Hospital possesses a fairly well equipped workshop in which male patients work under the supervision of the Head Attendant.

3. Details of Staff are as follows:—

Medical Superintendent (Part-time)
Head Attendant
Assistant Attendant
Eight Female Fijian Orderlies
Four Female Samoan Orderlies
Nine Male Fijian Orderlies
Five Samoan Orderlies
Two Male Indian Cooks
One Male Fijian Cook
One Male Fijian Kitchen Hand

4. The following table shows admissions and discharges:—

Remaining in Hospital at the end of 1956	..	155	
Admitted during 1957	.. .. .	73	
		<hr/>	228
Discharged during 1957	.. .. .	3	
Absent on trial during 1957	.. .. .	53	
Died in Institution during 1957	.. .. .	12	
Remaining in Hospital at the end of 1957	..	160	
		<hr/>	228

5. The following table shows the length of residence of the patients remaining in the Mental Hospital at the end of 1957:—

<i>No. of Years</i>		<i>Males</i>	<i>Females</i>	<i>Total</i>
0 to 1 year	.. ..	15	21	36
1 to 2 years	.. ..	7	12	19
2 to 3 years	.. ..	10	5	15
3 years and over	.. ..	55	35	90
				<hr/>
				160

6. The following have been classified as follows:—

<i>Classification</i>		<i>Numbers</i>	<i>Deaths</i>
Manic depressive psychosis	..	75	3
Schizophrenia	.. ..	103	3
Mental Defective	.. .. .	8	..
Delusions	.. .. .	2	..
Epilepsy	.. .. .	9	..
Senility	.. .. .	16	5
Spastic diplegia	.. .. .	2	..
General Paralysis of the Insane	..	3	..
Alcoholism	.. .. .	1	..
Involutional melancholia	.. ..	2	..
Idiocy	.. .. .	5	1
Psychosis with Arteriosclerosis	..	2	..

7. The racial distribution and sex of patients is as follows:—

		<i>Males</i>	<i>Females</i>	<i>Total</i>
Europeans	..	7	9	16
Fijians	.. ..	27	18	45
Indians	.. ..	76	72	148
Others	.. ..	12	7	19

8. The deaths which occurred at the institution were from the following causes and in the following classes:—

<i>General Condition</i>		<i>Cause of Death</i>
3 Manic depressive	.. ..	Congestive Cardiac failure
3 Schizophrenia	.. ..	Cardiac failure
3 Senility	.. ..	Cardiac failure
1 Senility	.. ..	Chronic Pulmonary T.B.
1 Senility	.. ..	Pulmonary T.B.
1 Idiocy	.. ..	Cardiac failure

9. The following table shows the nationality and sex of various patients:—

	Europeans		Fijians		Indians		Others		Total		Total
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M. & F.
Remaining at end of 1956	5	6	21	10	55	44	9	5	90	65	155
Admitted during 1957	3	3	6	9	16	29	5	2	30	43	73
											<u>228</u>
Absent on trial during 1957 .. ..	..	1	8	6	14	21	1	2	23	30	53
Discharged in 1957 .. ..	..	..	..	2	1	..	..	..	1	2	3
Died during 1957 .. ..	..	..	3	..	4	3	2	..	9	3	12
Remaining at end of 1957	8	8	16	10	54	48	11	5	89	71	160
											<u>228</u>
Total number absent on trial including those absent on trial during 1957	9	7	27	26	52	65	7	2	95	100	195

10. Forty-four patients received electro-convulsive therapy.

11. Quarterly visits were paid by the Board of Visitors.

12. Gifts to the institution were made as follows:—

- (a) Dr. Williams and Mrs. A. Bernard, soft drinks and sandwiches to each patient.
- (b) British Council—monthly screening of films.
- (c) St. Andrews Presbyterian Xmas Cheer Fund—Canned fruit, soft drinks, and sweets to each patient.
- (d) Rotary Club—a present of sweets and soaps to each patient.

APPENDIX VII

CENTRAL LEPROSY HOSPITAL, MAKOGAI, FIJI

The island of Makogai has been devoted since 1911 to the treatment of persons of all races suffering from leprosy. The northern half of the island is devoted to the hospital and villages of the patients. The arable land in this area is also given over to them for cultivation. The southern half of the island is reserved for the staff residences and the stock farm. The entire island is volcanic in origin and measures approximately three miles from North to South by two miles from East to West. It rises to 870 feet with two other peaks of over 700 feet.

2. Since its inception 3,733 patients have been treated. There have been 1,537 cases of arrest of the disease, 461 repatriations and 1,176 deaths. At the end of 1957, the number of patients was 559 of whom 384 were from within the Colony. During the year there were 49 admissions, 38 discharges and 8 deaths. Details of the average daily number of patients of each race are shown in Table I.

TABLE I—AVERAGE DAILY NUMBER OF PATIENTS OF EACH RACE IN MAKOGAI DURING 1957

Fiji—						
Euronesian	..	..	..	..	7.0	
Chinese	..	..	..	..	4.81	
Melanesian	..	..	..	..	21.6	
Rotuman	..	..	..	..	16.0	
Samoan	..	..	..	..	1.0	
Banaban	..	..	..	..	7.0	
Fijian	..	..	..	..	136.0	
Indian	..	..	..	..	189.0	
						382.41
Western Samoa—						
Euronesian	..	..	..	..	4.0	
Chinese	..	..	..	..	1.0	
Samoan	..	..	..	..	33.2	
						38.2
Cook Islands—						
Cooks	..	..	..	..	21.5	
Niue Island	..	..	..	..	3.0	
						24.5
Gilbert and Ellice Islands Colony—						
Euronesian	..	..	..	..	4.0	
Chinese	..	..	..	..	1.0	
Gilbertese	..	..	..	..	70.53	
						75.53
Tonga—						
Tongans	..	..	..	..	28.6	
						28.6
New Zealand—						
European	..	..	..	..	1.0	
Euronesian	..	..	..	..	.26	
						1.26
						550.50

3. *Establishment*—The staff of the hospital consists of the following:—

Medical Superintendent
 Local Superior of the Missionary Sisters of the Society of Mary
 Seventeen Sisters
 Class I Clerk
 Class II Clerk
 Overseer, Mechanical
 Overseer, Stock, Farm and Labour
 Sergeant and four Police Constables
 Fifty-three labourers.

4. It was decided during the year that some of the labouring staff had become redundant now that so many of the patients were capable of working and a reduction was planned to take place in the early part of 1958.

5. The Medical Superintendent also acts as Sub-Accountant, Postmaster, Magistrate (of the second class), Officer in Charge of Government Savings Bank, Officer in Charge of Police, Officer in Charge of Prison, Coast-watcher, Officer in Charge of Makogai Canteen, Officer in Charge of Telecommunications and Manager of Nasau School. In addition to these duties he also runs a daily surgery for members of the staff. Accurate figures are only available for the second half of the year, but during this six months, 1,426 patients were seen: this does not include six confinements among wives of staff and one visitor who gave birth to her baby while in Makogai.

6. During the year certain proposed amendments to the Ordinance and Regulations concerning leprosy were drafted with a view to bringing this legislation more into line with modern concepts. The proposed amendments were forwarded to the Director of Medical Services for consideration.

7. The Medical Superintendent was absent from his post from 26th November to 4th December inclusive when he attended a Conference of the Lepers' Trust Board in Christchurch, New Zealand and read a paper on the modern treatment of leprosy.

8. *Teaching*—Two Assistant Medical Practitioners from the Gilbert and Ellice Islands Colony spent about ten weeks in Makogai undergoing a refresher course in leprosy. An Assistant Medical Practitioner from the Cook Islands spent one month.

9. Twelve students from the Central Medical School visited Makogai for periods of about a fortnight during the year. In order to assist them in their studies a set of notes was prepared which, with the kind co-operation of the Principal of the School, was cyclostyled for distribution to these and future students.

10. *Statistics*—In the table shown below are indicated the progress of the various classes of patient. The classification used in Makogai is a simple one which has been in use here for a long time. It would not appear that the benefit gained from converting to the more complicated Madrid classification would be commensurate with the labour entailed in re-classifying some 550 patients. Our classification is as follows:—

Tuberculoid 1	..	cases with a few leprides and minor disturbances of sensation only:
Tuberculoid 2	..	cases with thickened and painful nerves and/or more and larger leprides:
Tuberculoid 3	..	cases with deformities:
Lepromatous 1	..	cases with a few lepromata or with no skin lesions but with positive smears:
Lepromatous 2	..	cases with numerous lepromata or several large ones, or with nodules:
Lepromatous 3	..	numerous and extensive lepromatous skin lesions with or without lesions of the mucous membranes:
Indeterminate T/L	.	Indeterminate cases indicative of tuberculoid rather than lepromatous leprosy:
Indeterminate L/T	.	Indeterminate cases indicative of lepromatous rather than tuberculoid leprosy.

11. Table II below shows the breakdown of admissions to Makogai over the past three years. Several things are of interest. If a batch of 11 patients who arrived *en masse* from Tonga in 1956 are excluded from the total of that year, it will be seen that the annual intake from Fiji remains about the same which would seem to indicate that the disease is still occurring in the Colony. The number of children admitted remains fairly constant if we again exclude those admitted from Tonga in 1956 which bears out the observation.

12. On the other hand the proportion of tuberculoid cases shows a steady rise with a corresponding drop in the lepromatous cases. This is encouraging as it indicates that some resistance to leprosy is beginning to develop in the population.

TABLE II

	1957	1956	1955
Total number of admissions ..	49	60	45
Adults	42	43	39
Children (under 14)	7	17	6
Tuberculoid 1	16	13	9
2	11	14	5
3	2	1	3
Lepromatous 1	4	16	7
2	10	11	19
3 .. ..	..	5	1
Indeterminate L/T	3	....	1
Indeterminate T/L	3	....	....

13. Table III shows the progress of the various patients in Makogai divided into their different classifications. It includes those who were discharged during the year who are shown as improved and also, contrary to the practice of previous years, those admitted in the latter half of the year who are shown as stationary. It is of interest to note the very high proportion (over 50%) who are in the lepromatous group. This can be expected to show a steady decrease in the future. It is also interesting to see how many patients have improved, 422 being better than they were during 1956. One hundred and fifty-two have remained stationary and only 21 have deteriorated in condition. This, of course, fluctuates from year to year and, often, after a year of improvement a year of consolidation follows so that this figure can be expected to be lower in 1958.

TABLE III

			T1	T2	T3	L1	L2	L3	T/L	L/T
Improved	..	..	30	45	11	59	243	32	1	2
Stationary	..	..	12	13	3	17	94	7	3	3
Worse	..	..	....	2	1	4	13	1	....	....

14. The eight deaths recorded took place from the following causes. It should be recorded that all were elderly and most senile:

- 1. Subacute nephritis
- 2. Pulmonary oedema; congestive cardiac failure
- 3. Acute septicaemia; infected trophic ulcer
- 4. Acute nephritis
- 5. Inanition; senility
- 6. Coronary thrombosis
- 7. Acute peritonitis; carcinoma of descending colon
- 8. Cerebral thrombosis; senility.

15. *Treatment*—Diamino-Diphenyl-Sulphone both by mouth and by injection remained the standard method of treatment. Sulphetrone was used with unexpectedly good results in several patients who appeared unable to tolerate Diamino-Diphenyl-Sulphone. A widespread campaign on trophic ulcers was undertaken and most were treated surgically. The results were excellent and few such ulcers remain to be treated. A.C.T.H. proved most disappointing in the treatment of the lepra reaction but Cortisone has proved invaluable and, from the very small trial we were able to give of it, Hydrocortisone seems even better. Nerve pain was treated with fair success by injections of Procaine and Hyalase along the course of the nerve and, in two cases, by decapsulation.

16. *Research*—An extensive three year trial on the value of Vaccine Marianum (otherwise known as Chauvire Antigen) was completed during the year. The drug was administered by intradermal injection every six months for three years to a group of patients chosen because they were suffering from inactive lepromatous leprosy but whose skin smears remained positive. Diamino-Diphenyl-Sulphone was exhibited in conjunction with the Vaccine. The whole experiment suffered by being under the control of a series of doctors and no “controls” were made until after the experiment ended when a group of cases were chosen from those who seemed to be at about the same stage as the test cases at the start of the experiment.

17. Eighty-four patients were treated with the Vaccine. Before the course, 13 were lepromin positive and 71 were lepromin negative. At the end of the experiment there were 69 reactors to lepromin and only 15 remained negative. Out of the 84 cases treated, 31 per cent were discharged, 43 per cent were improved and 26 per cent were stationary or worse. Of 21 controls (whose condition at the start of the experiment was, on the whole, worse than that of the test cases) 19 per cent were discharged, 57 per cent improved and 24 per cent remained stationary or worse.

18. It is concluded that an improvement factor of 74 per cent in the test cases and of 76 per cent in the controls proves that Vaccine Marianum is of no value as an adjunct to Diamino-Diphenyl-Sulphone in the treatment of lepromatous leprosy. Furthermore the Vaccine when administered by intradermal injection causes a very severe local reaction which often leads on to ulcer formation of a most chronic nature.

19. It is conceded that the Vaccine appears effective in converting a lepromin negative skin test into a positive one and so, to a certain extent perhaps, favouring the transition of a case of lepromatous leprosy into one of the tuberculoid type. The author, however, ventures to argue if, under modern treatment, this is of any benefit to the patient. It would, in fact, seem in many cases to be a definite disadvantage to him.

20. A further and more detailed report on this experiment is being prepared with a view to publication.

21. *Tuberculosis*—During the year two cases of tuberculosis were discovered in Makogai, both being re-activity in old cases and three new cases were admitted from Tamavua. Seven cases of pulmonary tuberculosis were considered as cured during the year and discharged to the villages and there are now seven active cases undergoing treatment. There are now 42 inactive cases in Makogai and 37 cases on survey. The routine X-raying of all patients was completed during the year.

22. *X-Ray Department*—The total number of X-ray examinations performed during the year was 702; this in spite of the fact that the larger electricity generator was out of action for two months. These were divided as follows:—

Chest	..	..	..	..	..	372
Hands and feet	..	..	..	..	..	128
Barium meals and enemas	..	..	..	..	..	17
Others (fractures, dental etc.)	..	..	..	..	..	185

23. *Physiotherapy Department*—The Physiotherapy Department was seriously hampered during 1957 by having the physiotrome machine out of action for four months due to a broken condenser, and the Ultra Short Wave machine out of order for nine months as the result of a broken valve. These spare parts were ordered as soon as the damage in each instance occurred but, at the time of writing, they have not yet arrived in Makogai.

24. In spite of this, however, 5,658 treatments and 11,612 sessions of exercises were given. Details are as below:—

Alpine	..	..	..	..	211	
Centrosol	..	..	..	..	455	
Kromayer	..	..	..	..	1,143	
Infra Red	..	..	..	..	2,689	
Physiotrome	..	..	..	..	365	
Ultra Short Wave	..	..	..	..	210	
Duflot	..	..	..	..	585	
						5,658
<i>Exercises—</i>						
Men	..	..	..	..	3,120	
Women	..	..	..	..	2,340	
Children	..	..	..	..	5,720	
Special exercises		..	..	..	432	
						11,612

25. *Surgery*—Seventy-one operations were performed during the year, all except one by the Medical Superintendent. The exception was the cataract operation performed by Mr. J. R. Wheeler, F.R.C.S., Ed. D.O.M.S., who visited us during November and gave us the benefit of his most helpful advice on our various ophthalmological cases.

26. The operations performed fell into the following groups:—

Incision of abscesses	..	..	..	6
Excision and scraping of trophic ulcers				37
Excision of sebaceous cysts	..	..		5
Amputation of digits	..	..	..	9
Amputation of limbs	..	..	..	2
Ligation of varicose veins	..	..		1
Decapsulation of nerves	..	..		2
Enucleation of eye	..	..	..	1
Removal of lens (cataract)	..	..		1
Radical cure of hydrocele	..	..		3
Orchidectomy	..	..	..	1
Appendicectomy	..	..	..	2

27. *Dentistry*—One of the Sisters again carried out all routine operative and curative dentistry throughout the year. During September a Dental Officer visited Makogai for a period of fourteen days.

28. The following dental treatment was performed during the year:—

Treatment of mouth and gums	..	1,018
Filling of cavities	..	126
Extractions	..	366
Scaling	..	51
Dentures (complete and partial)	..	28

29. *Laboratory*—The laboratory was staffed throughout the year by one Sister who was assisted when time permitted by a second. In addition to a great deal of ordinary clinical side-room work, all patients and members of the staff and their families had blood slides examined for filariasis. Blood grouping and cross-typing was performed whenever necessary and no fewer than 3,572 skin smears were examined for mycobacterium leprae.

30. *Occupational Therapy*—Occupational therapy plays such a vital part in the treatment of any disease as chronic as leprosy that it is pleasant to be able to record the amount that takes place in Makogai.

31. The Ernest Wolfram Technical Institute and the Alice Austin Arts and Crafts Centre are busier than ever and visitors are continually expressing amazement at the high standard of the work turned out. All maintenance of hospital buildings is carried out entirely by patients. During the year a new physiotherapy building was commenced and, by the end of the year, the roof was in place. All work on this project too was performed by patients. The various plantations thrive and the ornamental gardens around the hospital reflect the enthusiasm of patients and nursing staff for this sort of work. The office and kitchen were extensively reconstructed and repaired by patient labour.

32. *Lepers' Trust Board*—Mr. P. J. Twomey, M.B.E., paid a three weeks visit to Makogai during the year and the patients were able to express to him personally their gratitude for all the wonderful things the Lepers' Trust Board has provided for them during the years, largely thanks to him.

33. The new physiotherapy building referred to above is being donated by the Board with its customary generosity.

34. The Fiji branch of the Lepers' Trust Board visited Makogai in November and held a Board meeting here.

35. *Visitors*—Many people visited Makogai during the year. The following list is by no means complete but gives an idea of the variety of guests we have to expect—

Commissioner of Police, Fiji
 District Medical Officer, Eastern
 Sir Eric Pridie, K.C.M.G., D.S.O., O.B.E.
 Mr. Philip Rogers, C.M.G., Under Secretary of State, Colonial Office
 Commissioner, Eastern
 Commissioner for the Government of India in Fiji
 Mr. J. Madhavan, M.L.C.
 Mr. J. Godfrey, Dental Officer
 Dr. V. W. T. McGusty, C.B.E., Auckland, New Zealand
 Acting Deputy Director of Medical Services
 Mr. P. J. Twomey, M.B.E., Secretary, Lepers' Trust Board, Christchurch, New Zealand
 Deputy Commissioner of Police, Fiji
 Director of Public Works, Fiji
 Dr. S. V. Kibby, Medical Superintendent, Molokai Leprosy Hospital, Hawaii
 Director of Medical Services, Fiji
 Members of the Lepers' Trust Board (Fiji) Inc.
 Mr. H. Hardie, M.R.C.V.S., Veterinary Officer
 Mr. J. R. Wheeler, F.R.C.S. Ed. D.O.M.S., Professor of Ophthalmology, Queen's University, Belfast, United Kingdom
 His Lordship the Right Reverend Bishop Foley, S.M.
 Members of the Sergeants' Mess, R.N.Z.A.F. Station, Laucala Bay, Suva.

APPENDIX VIII

ST. ELIZABETH'S HOME—KOROVOU, SUVA

Discharged cases from Makogai housed until transport is arranged to their various destinations in and outside the Colony:—

				<i>Male</i>	<i>Female</i>	<i>Total</i>
Fijians	..	..	..	5	2	7
Indians	..	..	..	2	2	4
Cook Islanders	..	..	..	2	1	3
Gilbertese	..	..	..	12	1	13
Solomonese	..	..	..	2	0	2
Tongans	..	..	..	2	0	2
Euronesians	..	..	..	0	1	1
Samoans	..	..	..	2	0	2
Chinese	..	..	..	2	0	2
				—	—	—
				29	7	36

2. Patients housed pending removal to Makogai:—

				<i>Male</i>	<i>Female</i>	<i>Total</i>
Fijians	..	..	..	24	6	30
Indians	..	..	..	10	9	19
Solomonese	..	..	..	1	2	3
Tongan	..	..	..	1	0	1
				—	—	—
				36	17	53

3. Patients on survey, or other matters housed during the year:—

				<i>Male</i>	<i>Female</i>	<i>Total</i>
Fijians	..	..	..	20	16	36
Indians	..	..	..	22	2	24
Chinese	..	..	..	2	0	2
Solomonese	..	..	..	1	2	3
				—	—	—
				45	20	65

4. Total number of discharged patients from Suva, Rural and Urban during 1957:—

				<i>Male</i>	<i>Female</i>	<i>Total</i>
Suva Urban	..	..	..	6	1	7
Suva Rural	..	..	..	15	8	23
				—	—	—
				21	9	30

APPENDIX IX

DENTAL DIVISION—MEDICAL DEPARTMENT

The dental service in Fiji consists of four main activities, all of which are closely interlinked in operation—

- (1) Permanent Dental Clinics
- (2) School Dental Service
- (3) Dental Health Education Programme
- (4) Dental School of the Central Medical School (see Appendix XI).

(1) PERMANENT DENTAL CLINICS

(a) *Suva Dental Clinic*

2. In February the new dental clinic commenced operation in the former Central Medical School building in the Colonial War Memorial Hospital grounds. This building had been partitioned and extended at each end. While not ideally suitable for conversion to a dental clinic, because of existing walls and restricted natural lighting, the building has provided much more space and much improved facilities. It combines the function of dental clinic, administrative headquarters and dental school.

3. *Staff—*

D. M. Ellerton, B.D.S.	..	Senior Dental Officer
I. L. Vosailagi, B.D.S.	..	Dental Officer
Mrs. N. H. Palmer, B.A.	..	Dental Hygienist
I. Nadakuitavuki	.. ..	Assistant Dental Officer
D. Singh	.. ..	Assistant Dental Officer
Miss T. Pickering	.. ..	Assistant Dental Officer
Sister M. Usher	.. ..	Nursing Sister
M. Vidovi	.. ..	Senior Nurse
Madan Pal	.. ..	Assistant Dental Mechanic
P. Permal	.. ..	Assistant Dental Mechanic
Susan Pene	.. ..	Assistant Dental Hygienist

Dental Officers A. H. Thomson and J. L. Godfrey of the Central Medical School assisted with clinical duties, and the final year students contributed largely to the treatments carried out.

4. *Dental Treatment—**Operative—*

Fillings	.. ..	2,425
Temporary fillings	.. ..	2,296
Scalings	.. ..	648

Surgery—

Extractions—permanent	.. ..	2,939
deciduous	.. ..	2,259
Surgical removals	.. ..	48
Fractured mandible fixation	.. ..	20
General anaesthetics	.. ..	111

Radiography—

Films taken	521
-------------	-------	-----

Dentures—

Full upper and lower	.. ..	182
Partial dentures	.. ..	67
Rebase or repair	.. ..	69

Attendances Adults—

European	.. ..	657
Fijian	.. ..	2,730
Indian	.. ..	2,640
Others	.. ..	673

Attendances Children—

European	.. ..	1,084
Fijian	.. ..	1,482
Indian	.. ..	3,016
Others	.. ..	770

Total attendances .. 13,052

Revenue—

Total Revenue .. £2,497 18s. 9d.

The total revenue showed an increase of £600 on the revenue for 1956. Children up to the age of 18 years receive free dental treatment, also destitutes, Fiji Military Forces personnel, non-commissioned police officers and inmates of the Mental Hospital and Gaol.

(b) *Lautoka Dental Clinic*

5. This clinic was established early in the year and operated in a room adjoining the out-patients department in the Lautoka District Hospital. The dental equipment was set up in temporary fashion only as the clinic is to be permanently established in the Health Office early in 1958.

6. The clinic was operated throughout the year by Assistant Dental Officer Pillai under the administrative direction of the District Medical Officer, Western.

7. Statistics—

Permanent fillings	..	..	..	722
Temporary fillings	..	..	..	406
Scalings	..	..	..	98
Extractions	..	..	..	4,269
Surgical operations	..	..	..	23
Total attendances	..	..	..	4,329
Revenue	..	..	..	£423 15s. 0d.

(c) LEVUKA DENTAL CLINIC

8. This clinic was set up in a room next to the office of the District Medical Officer and Assistant Dental Officer Masi was posted to Levuka as Assistant Dental Officer, Eastern, under the direction of the District Medical Officer, and operated the clinic while not away on tour within the district.

9. Statistics—

Permanent fillings	..	..	..	718
Temporary fillings	..	..	..	399
Scalings	..	..	..	121
Extractions	..	..	..	1,111
Total attendances	..	..	..	1,514
Revenue	..	..	..	£97 5s. 0d.

(d) LABASA DENTAL CLINIC

10. Assistant Dental Officer Mosese was posted to Labasa early in 1957 to set up a Dental Clinic at the District Hospital. After several temporary locations, it is now permanently established in one of the outbuildings in the hospital compound. This clinic, like those in Lautoka and Levuka serves as headquarters for dental activity in that district.

11. Statistics—

Permanent fillings	..	..	..	390
Temporary fillings	..	..	..	69
Scalings	..	..	..	38
Extractions	..	..	..	2,460
Total attendances	..	..	..	3,472
Revenue	..	..	..	£137 15s. 0d.

(2) SCHOOL DENTAL SERVICE

(a) Suva

12. The programme was again conducted in two parts—

- (i) Treatment at each of the 25 schools beyond reasonable walking distance of the clinic by a team consisting of two Assistant Dental Officers and an Assistant Dental Hygienist.

Statistics—

Permanent fillings	..	..	..	1,901
Temporary fillings	..	..	..	176
Scalings	..	..	..	820
Extractions	..	..	..	4,448

This team also visited—

Nasinu Training College
Approved School
Central Nursing School
Navuso Agricultural School
Mental Hospital

- (ii) Treatment in the Dental Clinic, Suva, of children from the 14 schools within reasonable walking distance.

(b) Districts

13. The Assistant Dental Officers, Northern, Western and Eastern made as many visits to schools, especially distant schools, as the travelling and subsistence vote would allow. In the latter part of the year, this policy was severely curtailed by lack of money.

(3) DENTAL HEALTH EDUCATION PROGRAMME

14. Again this year the policy has been to concentrate entirely on school children. Dental health talks, built up around the importance of diet, oral hygiene and dental treatment, were delivered in a total of 116 schools within the colony.

15. Toothbrushes at a cost of 3d. each were distributed to every child in nearly all of the Suva schools. The success of the daily toothbrushing scheme has been jeopardized through lack of space and washing facilities in many of the schools and unfortunately by lack of interest from the teachers in others. In those schools in which the system was carried out enthusiastically, the improvement in oral hygiene was most obvious. More teacher co-operation will be required in 1958.

16. The booklet "Good Teeth" was widely distributed again this year. Duplication in quantity of dental health posters could not be undertaken this year through lack of funds.

DENTAL TREATMENT IN RURAL DISPENSARIES

17. Assistant Medical Officers at their stations or on tour are called on to extract a large number of teeth. The scheme to equip each dispensary with a standard basic set of Forceps continued this year and the following items were issued:—

Forceps	..	..	114	Mouth Mirrors	..	..	16
Elevators	..	..	45	Dental Probes	..	..	9

APPENDIX X

PATHOLOGICAL DIVISION

Staff—The staff during 1957 became more settled, both the Pathologist and the Laboratory Superintendent were present for the whole year. The post of Chief Laboratory Assistant was filled by the appointment of Ramswamy Mutialu on promotion, after several years in the Laboratory.

2. Four students completed their courses and passed the examinations needed and were appointed Assistants. Four new students were selected out of a large number of applicants, two local students have completed two years of their course and should qualify early in 1959. One student from Niue Island continued his training and should complete his three years course in January, 1959. When this happens there should be sufficient locally trained Assistants to carry on the routine of the Division, and the next step should be to consider equipping and staffing small sub-Laboratories in the larger out-stations as at present obtains in Lautoka. The staff is not sufficient to allow such expansion at present.

3. Serious consideration should be given to training a suitable Assistant Medical Officer to help in post-mortem examinations, the blood transfusion service and preparation of teaching materials and lectures, to replace those previously in the Laboratory.

4. *Teaching*—During the year a room to act as a Museum for pathological specimens and a small lecture room attached was fitted up and is proving useful in teaching Medical Students, and is also useful for lectures to the Laboratory Students.

5. *Blood Transfusion Service*—The number of transfusions needed at the Colonial War Memorial Hospital almost doubled in 1957 compared with the previous year. With advances in surgery, especially chest and heart surgery, this service is more and more used. It is run by the Laboratory staff, and the only place available to bleed donors is the screened-off corner of the office used for patients. With the expansion of this service, the provision of a room reserved for donors is becoming a pressing need, and if the service still continues to expand, the provision of full-time staff will have to be considered.

6. *Routine Examinations*—These constitute the main work of the Laboratory, and have increased steadily and persistently over the last few years, the number for 1957 being 49,552.

7. The number of examinations carried out over the years are as follows:—

1939	..	..	7,060	1940	..	..	7,930
1941	..	..	19,971	1942	..	..	17,123
1943	..	..	25,784	1944	..	..	29,500
1945	..	..	33,041	1946	..	..	27,149
1947	..	..	26,291	1948	..	..	27,557
1949	..	..	27,570	1950	..	..	29,742
1952	..	..	26,348	1953	..	..	24,527
1954	..	..	33,469	1955	..	..	42,487
1956	..	..	44,470	1957	..	..	49,552

8. The examinations have been varied and are shown in detail in Table I, with the principle positive findings in Table II. This increase in routine is taxing the staff of the Laboratory to the full, and little time is left for either the Pathologist or the technical staff to carry out any original work. The sources of specimens are shown in detail in Table IV. 35 per cent of the specimens on which examinations were carried out came from in-patients and out-patients of the Colonial War Memorial Hospital. More than half the work of the Division is from sources other than the main Hospital, work being carried out for the Health Services of Government and Suva City Council, the Fiji Military Forces and Royal New Zealand Air Force, other hospitals and outstations among others. Private practitioners sent 857 specimens, the numbers decreased during the year after fees were introduced following legislation on the subject. A few specimens were received from other South Pacific territories, chiefly histology which can be easily transported.

9. *New Examinations*—Towards the end of the year a flame photometer was added to the Laboratory equipment to estimate Sodium and Potassium. Anti-streptolysin O titres were estimated as part of the investigation in acute rheumatism and allied streptococcal disorders. As this is a new examination here the titres found are reported in detail (see No. 6 in Table II). The high titres found indicate the prevalence of these disorders.

10. *Post-Mortem Examinations*—127 post-mortem examinations were carried out, 48 for the Police. The common causes of death are shown in paragraph 12 of Table II. Thirteen cases of suicidal hanging occurred—almost all in young Indians, chiefly women. This number was in the Police district served by Suva alone, and the prevalence of suicide in this group would appear to be a sociological problem which needs investigation.

11. *Branch Laboratory—Lautoka*—A total of 18,073 examinations were carried out in this Laboratory, which was almost the same as last year. This branch is staffed by an Assistant trained in Suva, and a cleaner. During the year, it was possible to station a second Assistant in Lautoka for part of the year. It is impossible for the work of this branch to increase until more staff is available.

TABLE I

CENTRAL LABORATORY, SUVA

Details of specimens etc. examined in Central Laboratory, 1957

1. Histology—				7. Vaccine Prepared—						
Material from biopsies etc.	..	..	816	T.A.B. 50 c.c. bottles	..	..	1,010		
autopsies..	..	..	169	Autogenous vaccines	..	..	7		1,017
Animal tissues	..	..	2						
			—							
			987							
2. Haematology—				8. Biochemistry—						
Blood counts—				Estimations in blood—						
White cell counts	..	..	3,370	Sugar	..	..	203		
Differential counts	..	..	3,389	Non-protein nitrogen	..	..	288		
Red cell counts.	..	..	2,552	Urea	..	..	278		
Haematocrit readings	..	..	539	Cholesterol	..	..	31		
Haemoglobin estimation	..	..	7,270	Uric acid	..	..	16		
Blood sedimentation rates	..	..	1,933	Salicylate level	..	..	11		827
Blood grouping	..	..	2,286						
Pretransfusion cross matching	..	..	647	Estimations in serum—					
Donors bled for transfusion	..	..	647	van den Bergh reaction	..	..	157		
Rh grouping	..	..	41	Bilirubin estimation	..	..	240		
Reticulocyte counts	..	..	1,777	Thymol turbidity test	..	..	161		
Marrow smears	..	..	148	Alkaline phosphatase	..	..	102		
Bleeding time	..	..	38	Acid phosphatase	..	..	11		
Clotting time	..	..	38	Calcium	..	..	9		
Platelet counts	..	..	24	Icterus index	..	..	20		
Prothrombin index	..	..	126	Diastase	..	..	10		
Coombs test	..	..	9	Protein—Albumin	..	..	344		
			—	Globulin	..	..	342		
			24,834	Total	..	..	344		
3. Seminal Fluids—				Chlorides	..	..	29		
Examinations for fertility tests	..		19	Sodium	..	..	20		
			—	Potassium	..	..	16		1,805
			19							
4. Parasitology—				Urine—						
Faeces—				Routine and microscopical examina-						
Microscopic	..	..	5,075	tions	..	..	4,699		
			—	Excretion of ascorbic acid	..	..	179		
			5,075	Bile	..	..	35		
Blood—				Urobilin, etc.	..	..	9		
Films for malaria	..	..	34	Acetone and Ketone bodies	..	..	9		
Microfilariae	..	..	387	Porphyryns	..	..	1		
			—	Diastase	..	..	1		
			421	Various	..	..	77		5,010
5. Bacteriology—				Cerebro-spinal fluids—						
Microscopic examinations—				Cytology				328
Vaginal, urethral and cervical smears			488	Protein	..	..	328		
Sputum	..	..	811	Sugar	..	..	328		
Stools for M. tuberculosis	..	..	9	Chlorides	..	..	328		1,312
Urine for M. tuberculosis	..	..	68						
Skin lesions for M. leprae	..	..	360	Faeces—					
Skin lesions for fungus	..	..	51	Occult blood	..	..	101		
Gastric washings	..	..	204	Fat	..	..	16		117
			—							
			1,991	Functional tests—						
Cultures—				Fractional test meals				83
Gastric washings for M. tuberculosis			45	Histamine tests	..	..	53		
Sputum for M. tuberculosis	..	..	88	Glucose tolerance tests	..	..	81		
other organisms	..	..	687	Calverts urea range	..	..	12		
Faeces for M. tuberculosis	..	..	4	Urea concentration tests	..	..	15		
other organisms	..	..	338	Miscellaneous	..	..	28		277
Urine for M. tuberculosis	..	..	50						
other organisms	..	..	523	9. Animal Inoculations—					
Blood	..	..	144	Toads for pregnancy tests	..	..	147		147
Throat swabs for M. tuberculosis	..	..	2						
other organisms	351	10. Rats for Plague				52
			—						52	
			2,232							
Cerebro-spinal fluid—				11. Forensic Medicine (Other than autopsies)—						
For M. tuberculosis	..	..	37	Clothing for stains (blood and					
other organisms	..	..	295	seminal stains)	..	..	21		
Conjunctival swabs	..	..	16	Weapons for blood	..	..	7		
Miscellaneous exudates, pus, etc.—				Vaginal swabs for spermatozoa	..	..	21		
For M. tuberculosis	..	..	33	Blood for group	..	..	5		54
Other organisms	..	..	553						
			—							
			954							
Bacteriological examination of water etc.—				12. Post Mortem Examinations—						
Drinking water supplies	..	..	444	Police	..	..	48		
Milk	..	..	11	Colonial War Memorial Hospital	..	..	52		
Ice Cream	..	..	17	Maternity Annex	..	..	17		
Aerated water	..	..	14	Tamavua Hospital	..	..	6		
Various	..	..	41	Mental Hospital	..	..	3		
			—	Others	..	..	1		127
			527							
Dark field examinations for treponemata										
			14							
6. Serology—				Total				49,552
Agglutination tests—										
For typhoid and paratyphoid	..		134							
Brucellosis infections (human)	..		31							
Kahn Reactions	..	..	1,518						
Anti-streptolysin "O" titres	..	..	72						
Weil-Felix reactions	..	..	3						
			—							
			1,758							

TABLE II

CENTRAL LABORATORY, SUVA

Principle Positive Results

1. Histology—				Blood—			
Hyperplasia (Endometrium)	..	..	19	Salm typhi	..	..	2
Hyperplasia Prostate	..	..	15	Salm. paratyphi A	..	..	6
Hyperplasia Breast	..	..	4	Salm. paratyphi B	..	..	1
Rheumatic tissues	..	..	2	Diplococcus pneumoniae	..	..	1
Acute inflammations	..	..	59	Staphylococcus aureus	..	..	2
Tuberculosis	..	..	17	Throat swabs—			
Leprosy	..	..	4	Staphylococcus aureus	..	..	45
Products conception	..	..	38	Streptococcus viridans	..	..	57
Benign tumours	..	..	74	Streptococcus haemolyticus	..	..	67
Malignant tumours	..	..	63	Diplococcus pneumoniae	..	..	17
2. Haematology—				Corynebacterium diphtheriae	..	..	8
Blood grouping—				Post nasal swabs etc.—			
Group AB Europeans	..	..	6 or 2.5%	Staphylococcus aureus	..	..	4
Indians	..	..	86 or 9%	Streptococcus viridans	..	..	12
Fijians	..	..	62 or 6%	Friedlander pneumobacillus	..	..	1
Others	..	..	1	Diplococcus pneumoniae	..	..	7
Group A Europeans	..	..	94 or 39.5%	Streptococcus pyogenes	..	..	7
Indians	..	..	215 or 23%	Cerebro-spinal fluid—			
Fijians	..	..	406 or 39.5%	M. tuberculosis	..	..	5
Others	..	..	21	Haemophilus influenzae	..	..	3
Group B	..	..	28 or 12%	Diplococcus pneumoniae	..	..	9
Indians	..	..	329 or 35%	Neisseria meningitidis	..	..	1
Fijians	..	..	177 or 17%	Streptococcus haemolyticus	..	..	1
Others	..	..	14	Conjunctival swabs—			
Group O Europeans	..	..	108 or 46%	Staphylococcus aureus	..	..	3
Indians	..	..	315 or 33%	Neisseriae gonorrhoeae	..	..	2
Fijians	..	..	383 or 37%	Pus, fluid etc.—			
Others	..	..	33	Staphylococcus aureus—			
Rh Negative Europeans	..	..	8	Penicillin sensitive	..	..	83
Coombs test—				Not sensitive	..	..	59
Indirect positive	..	..	1	Streptococcus pyogenes	..	..	29
3. Seminal Fluids—				Pseudomonas aeruginosa	..	..	27
Aspermia or very deficient	..	..	2	Proteus	..	..	13
4. Parasitology—				Diplococcus pneumoniae	..	..	1
Faeces, microscopic—				B. Coli	..	..	5
Ova—				Streptococcus viridans	..	..	2
Ankylostomes	..	..	1,138	M. tuberculosis	..	..	6
Ascaris lumbricoides	..	..	259	Dark field examinations—			
Enterobius vermicularis	..	..	75	Treponema pallidum	..	..	2
Trichuris trichura	..	..	75	Meat (tinned)—			
Larvae—				Gas forming anaerobes	..	..	1
Strongyloides stecoralis	..	..	89	Vaginal and cervical swabs—			
Cysts—				Neisseria gonorrhoeae	..	..	3
E. Coli	..	..	17	Staphylococcus aureus	..	..	55
E. histolytica	..	..	1	Streptococcus pyogenes	..	..	4
Giardia lamblia	..	..	12	Monilia	..	..	2
Protozoa—				Urethral smears (male)—			
Ent. histolytica vegetative	..	..	2	Neisseria gonorrhoeae	..	..	21
Blood films—				Staphylococcus aureus	..	..	26
Microfilaria	..	..	33	6. Serology—			
P. vivax	..	..	3	Agglutination, diagnostic titres—			
5. Bacteriology—				Salm. typhi	..	..	18
Microscopical examinations—				Salm. paratyphi A	..	..	8
Vaginal and cervical smears, N. gonorrhoeae	..	..	10	Salm. paratyphi B	..	..	2
Trichomonas vaginalis	..	..	7	B. proteus XKO	..	..	3
Urethral smears (male), N. gonorrhoeae	..	..	90	Anti-streptolysin O titres—			
Sputum—				Under 50	..	..	3
M. tuberculosis	..	..	63	50	..	..	2
Malignant cells	..	..	1	100	..	..	4
Skin snips etc.—				125	..	..	7
M. leprae	..	..	24	166	..	..	7
Fungus	..	..	9	250	..	..	6
Gastric washings—				333	..	..	3
M. tuberculosis	..	..	4	500	..	..	8
Cultures—				625 and over	..	..	8
Gastric washings—				Kahn reactions (blood)—			
M. tuberculosis	..	..	4	Fijians	—Strong positive reaction	64 or 17%	
Sputum—					Positive reaction	76 or 20%	
M. tuberculosis	..	..	5		Weak or doubtful reaction	57 or 15%	
Diplococcus pneumoniae	..	..	11	Indians	—Strong positive reaction	51 or 6%	
Streptococcus pyogenes	..	..	8		Positive reaction	34 or 4%	
Staphylococcus aureus	..	..	13		Weak positive or doubtful reaction	43 or 5%	
Faeces—				Europeans	—Strong positive reaction	Nil	
Shigella ambigua (Schmitz type)	..	..	1		Positive reaction	2 or 1%	
Shigella newcastle type	..	..	1		Weak positive or doubtful reaction	5 or 20%	
Shigella flexnerii W.	..	..	1	Others	—Strong positive reaction	9 or 12%	
Salmonella type not identified	..	..	1		Positive reaction	7 or 9%	
Urine—					Weak positive or doubtful reaction	5 or 7%	
B. Coli	..	..	193				
Staphylococcus aureus	..	..	60				
Streptococci	..	..	11				
Pseudomonas aeruginosa	..	..	15				

3. Biochemistry—					
Random and fasting blood sugar increased	..	..	..	..	70
T.N.P.N. and urea increased	..	..	..	..	104
van den Bergh reactions—					
Direct reaction	..	..	..	..	66
Indirect	..	..	..	..	6
Bilirubin increased	..	..	..	..	73
Thymol turbidity increased	..	..	..	..	31
Alkaline phosphatase increased	..	..	..	..	38
Protein—					
3-5 grams %	..	..	..	..	33
5-7 grams %	..	..	..	..	175
7-8 grams %	..	..	..	..	72
8 grams and over	..	..	..	..	31
Urine—					
Protein present	..	..	..	..	412
Sugar	..	..	..	..	96
Acetone	..	..	..	..	10
Bile	..	..	..	..	21
Haemoglobin	..	..	..	..	1
Casts	..	..	..	..	253
Red blood cells	..	..	..	..	213
Pus	..	..	..	..	263
Trichomonas vaginalis	..	..	..	..	24
Ascorbic acid excretion—absent or low	..	..	..	..	50
Leucine and tyrosine present	..	..	..	..	1
Faeces—					
Occult blood present	..	..	..	..	45
Functional tests—					
Fractional test meals—Hyperchlohydria	..	..	..	..	1
Achlorhydria	..	..	..	..	2
Histamine fast	..	..	..	..	22
Glucose tolerance test—Diabetic curves	..	..	..	..	34
Urea concentration—low	..	..	..	..	1
9. Animal Inoculations—					
Toads, pregnancy test positive	..	..	..	..	38
11. Forensic Medicine—					
Weapons etc. —Human blood	..	..	..	..	8
Clothing etc. —Human blood	..	..	..	..	8
Stains —Seminal stains	..	..	..	..	2
Human hairs	..	..	..	..	3
Vaginal swabs—Spermatozoa present	..	..	..	..	6
12. Common Causes of Death—					
(1) Violence—					
Wounds from sharp instruments—					
Suicide	..	..	..	..	1
Homicide	..	..	..	..	2
Firearms	..	..	..	..	1
Hanging	..	..	..	..	13
Drowning	..	..	..	..	4
Falls	..	..	..	..	3
Traffic accidents	..	..	..	..	7
Poisoning	..	..	..	..	3
Infanticide	..	..	..	..	1
(2) Death under 1 year—					
(a) Neonatal—					
Tentorial tears	..	..	..	..	4
Congenital defects	..	..	..	..	3
Prematurity	..	..	..	..	4
Atelectasis	..	..	..	..	2
Infections	..	..	..	..	3
(b) Later—					
Malnutrition	..	..	..	..	2
Tuberculosis	..	..	..	..	2
Congenital defect (Fibro-elastosis)	..	..	..	..	1
(3) Post partum deaths (maternal)—					
Eclampsia	..	..	..	..	1
Caesarean section, paralytic ileus	..	..	..	..	1
Obstetric shock	..	..	..	..	2
Septic abortion	..	..	..	..
(4) Common cause of deaths other than above—					
Tuberculosis, complications and end results	..	..	..	..	4
Acute rheumatism and end results	..	..	..	..	4
Nephritis	..	..	..	..	3
Acute infections	..	..	..	..	15
Degenerative vascular causes	..	..	..	..	4
Ruptured duodenal ulcer	..	..	..	..	2

APPENDIX XI

CENTRAL MEDICAL SCHOOL

The following table shows the number of students enrolled for each course during the past nine years:—

Course	1949	1950	1951	1952	1953	1954	1955	1956	1957
Medical	42	76	124	129	123	100	88	86	92
Dental	1	2	23	30	23	31	28	16	14
Pharmacy	2	5	5	9	6	6	6	4	2
Sanitation	6	14	10	20	13	12	7	14	11
Laboratory	3	5	6	12	8	8	10	6	4
Filariasis and Mosquito Control ..	13	16	14	21	9	8	24	....	....
X-Ray .. .. .	....	....	1	1	3	5	5	1	1
Dietetics .. .. .	....	....	....	....	....	....	....	2	3
Total	67	118	183	222	185	170	168	129	127

2. The number of students from each territory at the close of the academic year is shown in the table below:—

Administration	Pre-Medical High School Course		MEDICAL										DENTAL		Total	
			1st Year		2nd Year		3rd Year		4th Year		5th Year		All Years			
	1956	1957	1956	1957	1956	1957	1956	1957	1956	1957	1956	1957	1956	1957	1956	1957
Gilbert and Ellice Islands Colony . . . . .	..	..	2	3	..	1	..	..	..	..	..	..	..	..	2	4
British Solomon Islands Protectorate	1	1	1	2	..	..	..	..	2	..	..	2	..	..	4	5
Niue Island . . . . .	..	1	..	..	..	..	..	..	2	..	..	2	..	..	2	3
Cook Islands . . . . .	..	..	..	..	..	..	1	..	..	1	..	..	1	1	2	2
Western Samoa . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
American Samoa	2	2	1	2	..	..	..	..	2	..	..	1	..	..	5	5
Papua/New Guinea	10	9	8	8	..	4	2	..	..	2	..	..	2	3	22	26
Nauru Island . . . . .	..	..	..	..	1	..	..	1	1	..	..	1	..	..	2	2
Tonga . . . . .	..	..	..	..	..	..	..	..	..	..	1	..	3	2	4	2
New Hebrides	1	1	3	2	..	1	..	..	..	..	..	..	..	..	4	4
U.S.T.T. . . . .	..	5	..	..	..	..	..	..	2	2	..	..	..	..	2	7
Fiji . . . . .	..	..	6	7	12	5	8	11	7	8	10	7	10	7	53	45
Total	14	19	21	24	13	11	11	12	16	13	11	13	16	13	102	105

3. Of the thirteen students in the final year of Medicine, one left to start a full Medical course in New Zealand and nine passed the final qualifying examinations at the end of the year. Of these, four were Fiji students, one Nauruan, two from Niue, one from the British Solomon Island and one from American Samoa.

4. There were four in the final year in Dentistry and three passed—two from Fiji and one from Tonga.

5. One of the three Medical students and one Dental student were granted supplementary examinations and expected to qualify in March, 1958.

6. An analysis of the students who left the Medical and Dental courses is as follows:—

7. *Preliminary*—Two were repatriated as unsuitable and one was transferred to the Sanitation course. From the first year of Medicine one Fiji student was discharged, having failed to pass his entrance examination. In the second year of Medicine, one student resigned and, as mentioned above, in the fifth year one resigned to take up a Medical course in New Zealand. Two other students from this year were taken back by their territories, by agreement, to complete their course later.

8. From the Dental course in the first year, one was discharged for academic failure and one was transferred to the Laboratory course ; in the second year, one resigned.

9. *Preliminary Course*—It is evident that a considerable proportion of the students who enter the preliminary class are very far below the standard required for the first year in Medicine or Dentistry and all are agreed that it would be of great advantage if, for these students, *two* preliminary years were available. The comparatively high mortality in the first year, requiring repetition of that year or cessation of the course, is by no means uncommon in other medical schools and indicates the necessity for a more thorough preparation than is available at the moment.

10. While in 1957, thirteen of the nineteen students in the preliminary class were promoted to A.M.O. I, it was with some degree of apprehension, as ten of the twenty-four in A.M.O. I in 1957 were either required to repeat the year or transferred to other courses.

11. *Post-Graduate*—Six post-graduate students from various territories outside Fiji had periods of instruction from six to twelve months in various specialities during 1957. Four were Medical, one was Dental and one Pharmacy.

12. *Visitors*—During 1957, there were a number of distinguished visitors to the School, including the Director of Public Health, United States Trust Territories; the Chief Administrator from Niue; Sir Eric Pridie, K.C.M.G., O.B.E., D.S.O., Chief Medical Officer, Colonial Office; the Acting Director of Health, Papua and New Guinea; Sir Harry Luke, K.C.M.G.; the High Commissioner for Western Samoa; and a considerable number of scientifically distinguished people too numerous to list in this appendix.

13. It must be added that the School greatly appreciates the visits of the administrators, particularly those from the territories who send students to the School. Our scientific visitors always bring some contribution and quite a number of them have addressed students and graduates to our great advantage.

14. Mr. K. J. Gilchrist, lecturer in Anatomy and Surgery, was absent on leave for a considerable proportion of 1957 and returned in November. The Anatomy teaching was carried on, during his absence, by A.M.O. Ram Singh, and the staff of the Colonial War Memorial Hospital took care of the Surgery teaching.

15. The previous World Health Organization lecturer in Physiology, who resigned in 1956, was replaced by Dr. Claude Petitpierre in March, 1957.

16. Mr. P. C. Jain took over the Physics Department, being replaced by his wife, Mrs. B. Jain, as Chemistry lecturer on contract.

17. The Senior Dental officer returned from leave in January and two other dental officers joined the staff of the School—Mr. J. L. Godfrey in April and Mr. A. H. Thomson in July.

18. Mr. C. Stevenson took over the management of the office in August.

19. *General*—Once again it must be emphasized that the bulk of the clinical teaching and various other courses of instructions depend entirely on the good offices of members of the staffs of various sections of the Medical Department in Suva and elsewhere. The number of individuals involved is too great to list but, in particular, we must thank the medical and administrative staff of the Colonial War Memorial Hospital, Tamavua Hospital, Makogai Leprosy Hospital and the Health Department in Suva.

20. Finally, towards the end of 1957, a very generous grant of £15,000 sterling was made to the Medical School by the Nuffield Foundation to help in improving and developing the teaching of Social and Preventive Medicine. This grant has since been increased to £20,000.

21. *Dental School*—There was a disturbing drop in the intake of new students again during 1957 and this combined with a high wastage rate reduced the total number in training to 13 in three academic years.

22. The number of territories represented has fallen to four.

Fiji
Papua and New Guinea
Tonga
Cook Islands

23. Three students, two from Fiji and one from Tonga, successfully passed their final examinations and received their diplomas. A further student from Fiji was granted a supplementary final examination to be sat in April, 1958. This graduating class is the last to cover the three-year dental course. The course now returns to one of four years.

24. The dental teaching staff has been brought up to full complement with the arrival in mid-year of Mr. A. H. Thomson, L.D.S., to lecture in preventive dentistry and Mr. J. L. Godfrey, B.D.S., to lecture in the dental science subjects. With Mr. Thomson's arrival, it has been possible to commence an Orthodontic clinic for the first time in Fiji—an urgent need. Mr. Godfrey has taken charge of Dental Prosthetics. Ratu Vosailagi, Dental Officer, Mr. Ellerton, Senior Dental Officer and Mrs. Palmer, Dental Hygienist, assist with pre-clinical and clinical dental instruction and supervision.

25. *Ancillary course for Assistant Dental Mechanics*—There is no indication to increase the number of students in training beyond one at any time. The present student is now in his second year.

26. *Ancillary course for student Dental Hygienists*—Two girls completed the second year of their training and qualified. A further one girl will qualify early in 1958. These three girls will be posted to the Levuka, Lautoka and Labasa clinics.

APPENDIX XII

NURSING DIVISION

Recruitment of sisters continued through New Zealand and Australia with a few local appointments of sisters who have completed training overseas. Hospitals, Training Schools and Districts remained below Establishment.

2. The staffing of Hospitals and Districts by Colony trained nurses showed an improvement on that of 1956.

3. Three new nurses' stations were opened during the year.

4. *Nursing Establishment—*

						<i>Posts filled</i> 31/12/57	<i>Posts vacant</i> 31/12/57
Nursing Superintendent	..	..	..	1		1	..
Matrons	..	..	..	4		3	1
Assistant Matrons	..	..	..	2		..	2
Sisters-in-Charge	..	..	..	3		3	..
Health Sisters	..	..	..	13		8	5
Sisters, Departmental	..	..	..	54		41	13
Principal, Nursing School	..	..	..	1		1	..
Tutor Sisters	..	..	..	6		4	2
Nurses, Senior	..	..	..	52		50 (3 males)	2
Nurses	..	..	..	300		272	28
Male Nurses	..	..	..	16		19	..
Appointment of New Zealand Sisters on 2 year contract	..	..	..	..		10	
Appointment of Australian Sisters on 2 year contract	..	..	..	..		1	
Appointment of local Sisters, Permanent	..	..	..	..		6	
Appointment of local Sisters, Temporary	..	..	..	..		7	
Total number accepted on 2 year contract	..	..	..	..		22	
Total number accepted on temporary appointment	..	..	..	..		6	
Total number accepted on permanent appointment	..	..	..	..		7	
Number completing contract	..	..	..	..		7	
Number extending contract (one year)	..	..	..	..		5	
Number admitted to Hospital	..	..	..	..		6	

There were no major illnesses amongst the staff.

5. *Fiji Qualified Nurses:* Total number of trained nurses including—

8 Female Tuberculosis nurses employed 31st December, 1957	..	..	..	..	..	..	319
Employed in Hospitals 31st December, 1957	..	..	..	..	..	..	181
Fijians and others	..	..	..	..	..	..	168
Indians	..	..	..	..	..	..	13
Employed in Districts	..	..	..	..	..	..	138
Fijians and others	..	..	..	..	..	..	134
Indians	..	..	..	..	..	..	4
Total number of nurses qualified during the year	..	..	..	..	..	..	50
Total number of nurses promoted to senior grade	..	..	..	..	..	..	12
New appointments	..	..	..	..	..	..	47
Re-employed	..	..	..	..	..	..	32
Resumed duties following leave of absence	..	..	..	..	..	..	11
Leave of absence for one year	..	..	..	..	..	..	18
Resigned	..	..	..	..	..	..	47
Duties terminated	..	..	..	..	..	..	8
Medically boarded	..	..	..	..	..	..	1
Retired	..	..	..	..	..	..	4
Deceased	..	..	..	..	..	..	1
Admitted to General Hospital	..	..	..	..	..	..	15
Admitted to Tamavua Chest Hospital	..	..	..	..	..	..	4

6. *Male Tuberculosis Trained Nurses—*

Total number	..	..	..	..	..	..	22
Resigned	..	..	..	..	..	..	5
Appointment terminated	..	..	..	..	..	..	1
Died	..	..	..	..	..	..	1

NURSING SCHOOLS

7. *Central Nursing School, Tamavua*—*Trained Establishment :*

Principal	1
Tutor	4
Nurse	2
Number of students in training end of December, 1957 ..	186
Colony Curriculum, Central Nursing School ..	157
Colony Curriculum, Labasa	8
New Zealand Curriculum	21
	<hr/>
	186
	<hr/>

Colony Curriculum :

Number of nurses qualified 1957	33
Number of nurses partial pass	2
Number of nurses entered the school	66
Number of nurses transferred from New Zealand Curriculum .	2
Number of nurses leaving the school	19

School roll included :

Fijians	146
Part-Europeans	2
Rotumans	8
Papuans	8
Part-Chinese	1
	<hr/>
	165

New Zealand Curriculum :

Number in training 31st December, 1957	21
Number left school	3
Number transferred to Colony Curriculum	2

Roll includes :

Fijians	13
Part-European	1
Indians	7
	<hr/>
	21

New Zealand Preliminary State Examination :

Number sat examination	17
Number passed	12
Number partial pass	1
Number completed p. pass	1
Number failed	3
	<hr/>
	17

8. *Graduation*—Graduation and Prize giving took place during May. Following an address by the Director of Medical Services, medals and certificates were presented by the Nursing Superintendent, cups and prizes by Lady Hyne.

9. *Sport*—Nurses have taken an active interest in sport. Two teams were entered in the Fiji Basketball Association Inter-Club games.

One Nurse was selected to go to New Zealand with a representative team.

More interest has been taken in Athletics, and the nurses have been associated with the Central Medical School. Good results have been achieved by some of the nurses.

10. *Visit to New Zealand*—In June a nurse of the New Zealand standard course attended the Student Nurses' Association Conference in Wellington as an observer at the invitation of the New Zealand Student Nurses' Association.

LAUTOKA NURSING SCHOOL

11. *Trained Establishment*—

Tutor Sisters	2
Number of students in training end of December, 1957 ..	85
Number of nurses qualified	17
Number of nurses graduated	17
Number of nurses partial pass	5
Number of nurses entering the school	35
Number of nurses leaving the school	17

School roll includes—

Fijians	75
Indians	9
Part-European	1
	<hr/>
	85

12. *Graduation*—Graduation and Prize giving took place during May. Following an address by Sir Eric D. Pridie, Chief Medical Officer, Colonial Office, the medals were presented by the Nursing Superintendent and the certificates and special prizes by Mrs. McAlpine.

13. *Sport*—Basketball and athletics are still the favourite recreational activities.

During the year the nurses purchased themselves a radio for the Quarters.

A library has been built up partly by the efforts of the nurses and by donations of books by local people.

14. *Grand Total*—(Not including New Zealand Curriculum).

Number of nurses in training 31st December, 1957	..	..	250
Fijians	.. .. .	221	
Indians	.. .. .	9	
Part-Europeans	.. .. .	3	
Rotumans	.. .. .	8	
Papuans	.. .. .	8	
Part-Chinese	.. .. .	1	
		250	
Total number accepted to the schools	.. .. .	101	
Total number graduated	.. .. .	50	
Total number leaving the schools	.. .. .	36	

15. *Remarks*—Shortage of staff continued to make supervision and teaching difficult.

Accommodation at both Lautoka and Suva Nursing Schools, are not satisfactory, and does not stimulate the interest desired of student nurses. Over-crowding at both schools continued.

The practice of sending first year nurses to Labasa for one year is far from satisfactory.

It is hoped that it will be possible to staff Labasa Hospital by all qualified nurses during 1959, providing there is an increase in the Establishment.

Nurse Siteri Naqiri, Travelling Nurse, Nausori, attended a South Pacific Commission World Health Organization Health Education Training Course at Noumea, New Caledonia from 26/6/57 to 26/8/57.

HEALTH STAFF

16. *Establishment—Nursing*—

Health Sisters	.. .. .	13
Nurses	.. .. .	138

A similar programme of work was carried out during 1957, by the Health Sisters and Nurses.

17. *Health Sisters' Headquarters and Areas*—

Name	Headquarters	Areas
Miss L. C. Ramsamuj	.. Suva Health Office	.. Suva City, Suva Rural to Kalo-kolevu via Queens Road, Coli-i-Suva via Princes Road to Laqiri, Kalabo and Naliva village to Kings Road, Wailoku Hospital.
Miss J. Sinclair	.. .. Suva Health Office	.. Suva City, Suva Rural Schools to Davuilevu via Kings Road to Sawani via Princes Road.
Miss V. F. McKenzie (Health Sister)	.. Nausori	.. Rewa, Tailevu, Naitasiri, Kadavu.
Vacant (Health Sister)	.. Nadroga	.. Nadroga, Navosa, Namosi
Miss B. Johnson (Health Sister)	.. Lautoka Health Office	.. Lautoka, Yasawas, Nadi
Mrs. J. Cleary (Mobile Clinic)	.. Lautoka	.. Lautoka to beyond Korolevu on Queens Road and beyond Raki Raki via Kings Road
Vacant (Health Sister)	.. Nanukuloa	.. Ra Province
Vacant (Health Sister)	.. Ba	.. Ba Province
Mrs. A. Elsner (Health Sister)	.. Vatukoula	.. Vatukoula Obstetric Annexe, Tavua, Nadarivatu, Vatukoula
Miss L. Hunter-Smith (Health Sister)	.. Labasa	.. Macuata, Bua
Vacant (Health Sister)	.. Savusavu	.. Cakaudrove
Not yet established (Health Sister)	.. Levuka	.. Lomaiviti, Lau, Kadavu

18. It has not been possible to fill vacancies due to the continued shortage of nursing personnel.

19. *Health Sisters' Conference*—The annual Health Sisters' Conference was held during October in the Office of the Director of Medical Services. Many items were brought up for discussion.

20. *Nurses' and Midwives' Board*—The Nurses' and Midwives Board held a meeting during October, 1957.

SUVA HEALTH OFFICE

21. Health Sisters two (one Child Welfare, one School Health Sister).

A—CHILD WELFARE DEPARTMENT

Clinic Attendances—

Europeans	1,066
Part-Europeans	376
Fijians	4,974
Indians	2,961
Chinese	342
Others	427
Total	10,146
Children under 2 years seen at Health Office	5,558
Children between 2 years and 5 years seen at Health Office	2,575
Children under 2 years seen on Mobile Clinic	8,166
Children between 2 years and 5 years seen on Mobile Clinic	7,673
Stools sent to Laboratory	88
Children treated for round worms	221
Children treated for hook worms	9
Smallpox vaccinations	1,200
Vaccination inspections	326
Anti Tetanus inoculations given	29
Tetanus prophylactic inoculations given	49
Triple antigen inoculations given	1,158
T.A.B. inoculations given	571
Cholera inoculations given	83
Yellow Fever inoculations given	14
Inoculations against poliomyelitis given	4
Approximate number of family's first visit to Health Office	1,045
Number of homes visited	1,291
Number of children seen in homes	2,380

B—SCHOOLS HEALTH DIVISION

Number of children inspected and inoculated and treated at schools and in Health Clinic during 1957:

Number of children medically inspected at schools	11,853
Number of children given T.A.B. inoculations at schools	13,644
Number of children treated for minor ailments at schools	465
Number of children given T.A.B. inoculations at Health Office	188
Number of children given A.T.S. injections at Health Office	101
Number of children given penicillin injections at Health Clinic	83
Number of children treated for minor ailments at Health Clinic	5,493
Number of children treated for positive worms at Health Clinic	89
Number of children treated for secondary yaws at Health Clinic	14
Number of children treated for loss of weight	106
Number of children given triple antigen at Health Clinic	53
Number of children given tetanus toxoid at Health Clinic	2
Number of children given Polivirin at Health Clinic	10
Number of children found with chicken pox at Health Clinic	4
Number of children found with measles at Health Clinic	42
Number of children sent to O.P.D., Colonial War Memorial Hospital	181
Number of children sent to Dental Clinic	153
Number of children sent to X-Ray department	7
Number of children sent to Eye Clinic	73
Number of children sent to mobile X-Ray	20
Approximate number of children with family's first visit	2,190

ACTIVITIES OF HEALTH SISTERS AND RURAL HEALTH NURSES
BASED ON CENTRES OUTSIDE SUVA

	Lautoka	Labasa	Rewa	Tavua	Total
Attendance at Health Clinic	24,118	10,000	....	....	34,118
Schools visited	70	71	52	30	223
Children examined	10,121	3,339	11,363	15,935	40,758
Children seen in villages	126	....	6,798	660	7,584
Smallpox vaccinations	576	....	....	692	1,268
Ante-natal examinations	880	3,046	115	2,657	6,698
Homes visited	114	21	12	253	400
Typhoid inoculations	3,651	5,543	11,579	9,222	29,995
Diphtheria, Whooping Cough and Tetanus injection	202	1,042	149	1,048	2,441
Totals	39,858	23,062	30,068	30,497	123,485

APPENDIX XIII

NOTIFICATION OF INFECTIOUS DISEASES BY RACE FOR THE YEAR 1957

Disease	Europeans	Part-Europ.	Fijians	Indians	Others	Totals
1. Ankylostomiasis	3	4	140	178	6	331
2. Anthrax .. ..	....	....	....	....	....	....
3. Beriberi .. ..	....	....	....	2	....	2
4. Cerebro-Spinal Meningitis ..	....	....	....	....	1	1
5. Chicken Pox (Varicella)	3	4	134	24	17	182
6. Dengue Fever .. ..	....	1	5	6	....	12
7. Diphtheria .. ..	....	....	1	4	1	6
8. Dysentery—						
(a) Amoebic .. ..	....	2	7	8	3	20
(b) Bacillary	1	....	17	12	....	30
(c) Unclassified .. ..	....	2	77	95	9	183
9. Encephalitis Lethargica .. ..	....	....	4	1	1	6
10. Erysipelas .. ..	....	....	3	3	1	7
11. Infantile Diarrhoea	6	67	1,374	619	51	2,117
12. Infective Hepatitis	6	4	33	75	5	123
13. Influenza	178	286	7,465	3,762	499	12,190
14. Leprosy .. ..	....	....	10	11	3	24
15. Leptospirosis .. ..	....	....	....	....	....	....
16. Malaria .. ..	....	....	....	1	....	1
17. Measles (German) .. ..	....	....	46	4	....	50
18. Measles (Morbilli)	124	230	4,342	787	1,583	7,066
19. Mumps	1	....	5	6	....	12
20. Poliomyelitis	2	....	2	2	....	6
21. Puerperal Fever	2	2	45	84	2	135
22. Scarlet Fever	1	....	....	....	....	1
23. Tetanus	1	1	19	14	3	38
24. Trachoma	114	18	131	41	36	340
26. Tuberculosis—Pulmonary ..	2	7	154	57	14	234
27. Tuberculosis—Other forms ..	....	3	80	16	10	109
28. Typhoid Fever—						
(a) Enteric .. ..	....	....	5	2	....	7
(b) Paratyphoid Fever ..	....	....	17	....	1	18
29. Undulant Fever .. ..	....	....	....	....	....	....
30. Venereal Diseases—						
(a) Climatic Bubo .. ..	....	....	....	....	....	....
(b) Gonorrhoea	3	24	225	100	23	375
(c) Gon. Ophthalmia including Neonatorum ..	....	....	5	....	....	5
(d) Soft Chancre .. ..	....	....	....	1	....	1
(e) Syphilis .. ..	....	1	2	23	....	26
(f) Venereal Granuloma ..	....	....	....	....	....	....
(g) Others .. ..	....	....	....	....	....	....
31. Whooping Cough (Pertussis) ..	1	8	96	152	4	261
32. Yaws .. ..	....	5	132	15	7	159
Total ..	448	669	14,576	6,105	2,280	24,078

APPENDIX XIV

VITAL STATISTICS

(1) ESTIMATED POPULATION AT 31st DECEMBER, 1957

Race	Male	Female	Total	(1956)	Difference	Per cent increase	Population per sq. mile*
Fijians	77,755	75,601	153,356	151,105	+ 2,251	+ 1.5	22
Indians	92,234	85,013	177,247	172,667	+ 4,580	+ 2.7	25
Europeans	4,349	3,649	7,998	10,624	†	†	2
Part-Europeans ..	4,112	3,926	8,038	8,190	+ 152	+ 1.9	1
Other Islanders ..	2,861	2,540	5,401	5,935	— 534	— 0.9	density of less than 1 person per sq. mile.
Rotumans	2,323	2,263	4,586	4,389	+ 197	+ 4.8	
Chinese	2,707	1,641	4,348	4,369	— 21	— 0.5	
Others	5	59	64	602	— 538	— 89.0	
Totals ..	186,346	174,692	361,038	357,881	+ 3,157	+ 0.9	51

* Area of the Colony is 7,040 square miles

† Figures unreliable owing to errors in immigration statistics

(2) BIRTHS RECORDED DURING YEARS 1954-1957

Race	1954	1955	1956	1957	1956 Population (Census)*	Crude Birth- rate per mille of 1956 population
Fijians	5,294	5,017	5,378	5,933	148,134	39
Indians . . .	6,921	7,127	7,679	7,928	169,403	46
Europeans .. .	145	148	155	181	6,402	28
Part-Europeans ..	286	241	272	240	7,810	30
Rotumans .. .	191	166	213	171	4,422	39
Other Islanders ..	184	194	190	225	5,320	38
Chinese . . .	103	153	134	164	4,155	38
Others .. .	80	21	35	3	91	..
Totals ..	13,204	13,067	14,056	14,845	345,737	258

* Census 1956 figures replace estimate

(3) DEATHS RECORDED DURING YEARS 1954-1957

Race	1954	1955	1956	1957	1956 Population (Census) *	Crude death-rate per mille of 1956 population
Fijians	1,531	1,411	1,136	1,309	148,134	9
Indians	1,378	1,193	1,241	1,114	169,403	6
Europeans .. .	34	30	43	45	6,402	7
Part-Europeans ..	34	34	38	39	7,810	5
Rotumans .. .	47	53	65	46	4,422	10
Other Islanders ..	60	51	48	69	5,320	12
Chinese .. .	16	15	21	27	4,155	6
Others .. .	6	1	3	2	91	3
Totals ..	3,106	2,788	2,595	2,651	345,737	7

* 1956 Census figures replaces estimate

(4) MARRIAGES, BIRTHS, DEATHS AND NATURAL INCREASE—1957

Race	Marriages	Births	Deaths	Net Increase	1956 Population (Estimate)	Increase per mille
Fijians	1,069	5,933	1,309	4,624	151,105	31
Indians	1,263	7,928	1,114	6,814	172,667	40
Europeans .. .	35	181	45	136	10,624	*
Part-Europeans ..	55	240	39	201	8,190	25
Rotumans . . .	17	171	46	125	4,389	28
Other Islanders ..	37	225	69	156	5,935	26
Chinese .. .	32	164	27	137	4,369	31
Others .. .	1	3	2	1	602	2
Totals ..	2,509	14,845	2,651	12,194	357,881	34

* Figures unreliable owing to errors in immigration statistics

(5) INFANT AND CHILD MORTALITY

	Births	DEATHS UNDER 5 YEARS						Infant Mortality Rate per mille
		Under 1	1-2	2-3	3-4	4-5	Total	
1955—Fijians .. .	5,017	368	82	33	10	14	507	73
Indians .. .	7,127	312	35	12	5	11	375	40
1956—Fijians .. .	5,378	259	85	31	11	15	401	48
Indians .. .	7,679	342	29	21	8	7	407	45
1957—Fijians .. .	5,933	251	134	40	23	28	476	42
Indians .. .	7,928	282	35	13	16	7	353	36

APPENDIX XV

Return of Diseases and Deaths for the year 1957, at the Colonial War Memorial Hospital, Tamavua, Lautoka, Labasa and Levuka Hospitals.

NOTE.—This classification is based on the International Classification of Diseases, WHO 1955.

Intermediate List Number	Detailed List Numbers	Cause Groups	Euro.	Fijian	Indian	Others	Totals	Deaths
I—INFECTIVE AND PARASITIC DISEASES								
A 1	001-008	Tuberculosis of respiratory system	8	240	119	18	385	27
A 2	010	Tuberculosis of meninges and central nervous system ..	22	522	122	66	732	33
A 3	011	Tuberculosis of intestines, peritoneum and mesenteric glands	1	14	7	3	25	..
A 4	012, 013	Tuberculosis of bones and joints	2	34	9	1	46	..
A 5	014-019	Tuberculosis, all other forms	2	16	5	..	23	1
A 6	020	Congenital syphilis .. .. .	..	..	2	..	2	..
A 7	021	Early syphilis .. .. .	..	..	1	..	1	..
A 8	024	Tabes dorsalis .. .. .	..	..	2	..	2	..
A 9	025	General paralysis of insane .. .. .	..	..	4	..	4	..
A 10	022, 023 026-029	All other syphilis	1	2	7	1	11	..
A 11	030-035	Gonococcal infections	1	8	3	1	13	..
A 12	040	Typhoid fever .. .. .	..	2	2	..	4	1
A 13	041, 042	Paratyphoid fever and other Salmonella infections ..	..	1	3	1	5	..
A 14	043	Cholera .. .. .	..	..	..	..	..	..
A 15	044	Brucellosis (undulant fever) .. .. .	..	..	1	..	1	..
A 16 (a)	045	Bacillary dysentery	5	11	14	..	30	2
(b)	046	Amoebiasis	1	14	11	1	27	..
(c)	047, 048	Other unspecified forms of dysentery .. .. .	..	1	1	1	3	..
A 17	050	Scarlet fever .. .. .	..	..	1	..	1	..
A 18	051	Streptococcal sore throat	1	3	8	2	14	..
A 19	052	Erysipelas .. .. .	..	1	..	..	1	..
A 20	053	Septicaemia and pyaemia .. .. .	..	1	3	..	4	3
A 21	055	Diphtheria	2	..	12	1	15	..
A 22	056	Whooping cough	1	4	4	..	9	..
A 23	057	Meningococcal infections .. .. .	..	7	1	..	8	1
A 24	058	Plague .. .. .	..	..	..	..	..	..
A 25	060	Leprosy .. .. .	..	10	9	..	19	..
A 26	061	Tetanus	2	12	16	1	31	12
A 27	062	Anthrax .. .. .	..	..	..	..	..	..
A 28	080	Acute poliomyelitis	1	2	1	..	4	..
A 29	082	Acute infectious encephalitis .. .. .	..	1	1	1	3	3
A 30	081, 083	Late effects of acute poliomyelitis and acute infectious encephalitis .. .. .	..	1	2	..	3	..
A 31	084	Smallpox .. .. .	..	..	..	..	..	..
A 32	085	Measles	5	8	14	8	35	..
A 33	091	Yellow fever .. .. .	..	..	..	..	..	..
A 34	092	Infectious hepatitis	7	21	43	1	72	..
A 35	094	Rabies .. .. .	..	..	..	..	..	..
A 36 (a)	100	Louse-borne epidemic typhus .. .. .	..	..	..	..	..	..
(b)	101	Flea-borne endemic typhus (murine) .. .. .	..	..	..	..	..	..
(c)	104	Tick-borne epidemic typhus .. .. .	..	..	..	..	..	..
(d)	105	Mite-borne typhus .. .. .	..	..	..	..	..	..
(e)	102, 103 106-108	Other and unspecified typhus .. .. .	..	..	..	1	1	..
A 37 (a)	110	Vivax malaria (benign, tertian)	1	3	1	1	6	..
(b)	111	Malariae malaria (quartan) .. .. .	..	..	..	..	..	..
(c)	112	Falciparum malaria (malignant tertian) .. .. .	..	..	..	..	..	..
(d)	115	Blackwater fever .. .. .	..	..	..	..	..	..
(e)	113, 114 116, 117	Other and unspecified forms of malaria .. .. .	..	..	..	..	..	..
A 38 (a)	123-0	Schistosomiasis vesical (<i>S. haematobium</i>) .. .. .	..	..	..	..	..	..
(b)	123-1	Schistosomiasis intestinal (<i>S. Mansoni</i>) .. .. .	..	..	..	..	..	..
(c)	123-2	Schistosomiasis pulmonary (<i>S. japonicum</i>) .. .. .	..	..	..	..	..	..
(d)	123-3	Other and unspecified schistosomiasis .. .. .	..	..	..	..	..	..
A 39	125	Hydatid disease .. .. .	..	..	..	..	..	..
A 40 (a)	127	Onchocerciasis .. .. .	..	..	..	..	..	..
(b)		Loiasis .. .. .	..	..	..	..	..	..
(c)		Filariasis (<i>bancrofti</i>) .. .. .	..	32	5	2	39	..
(d)		Other filariasis .. .. .	..	4	..	5	9	..
A 41	129	Ankylostomiasis .. .. .	..	19	41	..	60	..
A 42 (a)	126	Tapeworm (infestation) and other cestode infestations	..	..	..	..	..	..
(b)	130-0	Ascariasis	2	19	21	1	43	..
(c)	130-3	Guinea worm (<i>dracunculosis</i>) .. .. .	..	..	..	..	..	..
(d)	124, 128 130-1, 130-2	Other diseases due to helminths .. .. .	..	1	..	..	1	..
A 43 (a)	037	Lymphogranuloma venereum .. .. .	..	1	..	..	1	..
(b)	038	Granuloma inguinale, venereal .. .. .	..	..	1	..	1	..
(c)	039	Other and unspecified venereal diseases .. .. .	..	..	..	..	..	..
(d)	049	Food poisoning infection and intoxication	2	5	1	2	10	..
(e)	071	Relapsing fever .. .. .	..	..	..	..	..	..

Intermediate List Number	Detailed List Numbers	Cause Groups	Euro.	Fijian	Indian	Others	Totals	Deaths
(f)	072	Leptospirosis icterohaemorrhagica (Weil's disease) ..	..	..	..	..	..	..
(g)	073	Yaws .. .. .	..	3	2	..	5	..
(h)	087	Chickenpox .. .. .	..	1	..	..	1	..
(i)	090	Dengue .. .. .	..	..	..	..	..	..
(j)	095	Trachoma	1	24	1	7	33	..
(k)	096-7	Sandfly fever .. .. .	..	..	..	..	..	..
(l)	120	Leishmaniasis .. .. .	..	..	..	..	..	..
(m)	121 (a)	Trypanosomiasis gambiensis .. .. .	..	..	..	..	..	..
	(b)	Trypanosomiasis rhodesiensis .. .. .	..	..	..	..	..	..
	(c)	Other and unspecified Trypanosomiasis .. .. .	..	..	..	..	..	..
(n)	131	Dermatophytosis	1	..	..	..	1	..
(o)	135	Scabies .. .. .	..	8	2	..	10	..
(p)	036, 054, 059, 063, 064, 070, 074, 086, 088, 089, 093, 096-1-096-6, 096-8, 096-9, 122, 132-134, 136-138	All other diseases classified as infective and parasitic ..	2	13	31	1	47	3
II—NEOPLASMS								
A 44	140-148	Malignant neoplasm of buccal cavity and pharynx ..	..	4	13	..	17	4
A 45	150	Malignant neoplasms of oesophagus .. .. .	..	..	3	..	3	..
A 46	151	Malignant neoplasm of stomach .. .. .	..	4	9	..	13	3
A 47	152, 153	Malignant neoplasm of intestine, except rectum ..	1	..	5	..	6	..
A 48	154	Malignant neoplasm of rectum .. .. .	..	2	4	1	7	..
A 49	161	Malignant neoplasm of larynx .. .. .	..	1	..	..	1	..
A 50	162, 163	Malignant neoplasm of trachea, and of bronchus and lung not specified as secondary	1	1	4	2	8	2
A 51	170	Malignant neoplasm of breast	2	4	2	..	8	2
A 52	171	Malignant neoplasm of cervix uteri	1	12	20	5	38	3
A 53	172-174	Malignant neoplasm of other and unspecified parts of uterus ..	..	1	5	..	6	12
A 54	177	Malignant neoplasm of prostate .. .. .	..	1	..	..	1	..
A 55	190, 191	Malignant neoplasm of skin	10	..	4	..	14	..
A 56	196, 197	Malignant neoplasm of bone and connective tissue ..	1	4	2	1	8	1
A 57	155, 160, 164, 165, 175, 176, 178-181, 192- 195, 198, 199	Other and unspecified sites	9	15	19	..	43	5
A 58	204	Leukaemia and aleukaemia	1	1	1	1	4	2
A 59	200-203, 205	Lymphosarcoma and other neoplasms of lymphatic and haematopoietic system	2	4	4	..	10	4
A 60	210-239	Benign neoplasms and neoplasms of unspecified nature ..	20	38	52	6	116	1
III—ALLERGIC, ENDOCRINE SYSTEM, METABOLIC AND NUTRITIONAL DISEASES								
and								
IV—DISEASES OF THE BLOOD AND BLOOD- FORMING ORGANS								
A 61	250, 251	Nontoxic goitre .. .. .	..	6	12	1	19	..
A 62	252	Thyrototoxicosis with or without goitre	2	1	6	..	9	..
A 63	260	Diabetes mellitus	9	22	155	4	190	13
A 64 (a)	280	Beriberi	1	13	5	1	20	2
	(b)	Pellagra .. .. .	..	..	3	..	3	..
	(c)	Scurvy .. .. .	..	..	..	..	..	..
	(d)	Other deficiency states .. .. .	..	6	11	..	17	2
A 65 (a)	283-286	Pernicious and other hyperchromic anaemias ..	1	8	15	..	24	1
	(b)	Iron deficiency anaemias (hypochromic)	7	44	50	2	103	8
	(c)	Other specified and unspecified anaemias	6	9	23	4	42	3
A 66 (a)	292, 293	Asthma	9	22	102	3	136	3
	(b)	240, 242-245, 253, 254, 270- 277, 287-289, 294-299	2	9	13	2	26	1
V—MENTAL, PSYCHONEUROTIC AND PERSONALITY DISORDERS								
A 67	300-309	Psychoses	6	1	9	..	16	..
A 68	310-324, 326	Psychoneuroses and disorders of personality ..	15	14	34	1	64	..
A 69	325	Mental deficiency .. .. .	..	3	3	..	6	..

Intermediate List Number		Detailed List Numbers	Cause Groups	Euro.	Fijian	Indian	Other	Totals	Deaths
VI—DISEASES OF THE NERVOUS SYSTEM AND SENSE ORGANS									
A 70		330-334	Vascular lesions affecting central nervous system	11	6	27	1	45	17
A 71		340	Nonmeningococcal meningitis .. .. .	..	17	9	1	27	11
A 72		345	Multiple sclerosis . . . . .	..	..	1	..	1	..
A 73		353	Epilepsy	3	11	16	2	32	2
A 74		370-379	Inflammatory diseases of eye	6	43	64	5	118	..
A 75		385	Cataract	18	27	138	4	187	..
A 76		387	Glaucoma . . . . .	..	2	9	1	12	..
A 77 (a)		390	Otitis externa .. .. .	..	..	3	..	3	..
(b)		391-393	Otitis media and mastoiditis	1	17	30	1	49	3
(c)		394	Other inflammatory diseases of ear .. .. .	..	2	1	..	3	..
A 78 (a)		380-384, 386, 388, 389	} All other diseases and conditions of eye	16	12	22	2	52	2
(b)		341, 344, 350-352, 360-369, 395-398	} All other diseases of the nervous system and sense organs .. .. .	..	..	..	..	..	..
VII—DISEASES OF THE CIRCULATORY SYSTEM									
A 79		400-402	Rheumatic fever	1	12	78	2	93	1
A 80		410-416	Chronic rheumatic heart disease	3	13	85	2	103	7
A 81		420-422	Arteriosclerotic and degenerative heart disease	8	12	59	1	80	11
A 82		430-434	Other diseases of heart	9	24	47	1	81	17
A 83		440-443	Hypertension with heart disease	7	17	46	4	74	6
A 84		444-447	Hypertension without mention of heart	9	8	37	2	56	3
A 85		450-456	Disease of arteries	5	6	24	1	36	7
A 86		460-468	Other diseases of circulatory system	21	18	19	4	62	1
VIII—DISEASES OF THE RESPIRATORY SYSTEM									
A 87		470-475	Acute upper respiratory infections	8	25	31	3	67	4
A 88		480-483	Influenza	8	61	46	8	123	4
A 89		490	Lobar pneumonia	10	96	74	5	185	5
A 90		491	Bronchopneumonia	10	111	134	6	261	28
A 91		492, 493	Primary atypical, other and unspecified pneumonia	4	16	25	..	45	1
A 92		500	Acute bronchitis	10	41	33	3	87	1
A 93		501, 502	Bronchitis, chronic and unqualified	4	2	21	2	29	3
A 94		510	Hypertrophy of tonsils and adenoids	7	6	61	2	76	..
A 95		518, 521	Empyema and abscess of lung .. .. .	..	3	7	..	10	2
A 96		519	Pleurisy	1	9	10	1	21	..
A 97 (a)		523	Pneumoconiosis .. .. .	..	..	..	..	..	..
(b)		511-517, 520-522, 524-527	} All other respiratory diseases	8	42	56	9	115	6
IX—DISEASES OF THE DIGESTIVE SYSTEM									
A 98 (a)		530	Dental Caries	2	1	1	..	4	..
(b)		531-535	All other diseases of teeth and supporting structures	3	6	28	1	38	..
A 99		540	Ulcer of stomach	5	10	53	3	71	3
A 100		541	Ulcer of duodenum	8	10	33	3	54	4
A 101		543	Gastritis and duodenitis	6	10	60	3	79	..
A 102		550-553	Appendicitis	36	44	150	9	239	..
A 103		560, 561, 570	Intestinal obstruction and hernia	18	52	56	10	136	8
A 104 (a)		571.0	Gastro-enteritis and colitis between 4 weeks and 2 years	12	43	39	6	100	6
(b)		571.1	Gastro-enteritis and colitis, ages 2 years and over	3	12	21	5	41	..
(c)		572	Chronic enteritis and ulcerative colitis . . . . .	..	2	3	1	6	1
A 105		581	Cirrhosis of liver	1	8	19	1	29	6
A 106		584, 585	Cholelithiasis and cholecystitis	6	10	62	1	79	3
A 107		536-539, 542, 544, 545, 573-580, 582, 583, 586, 587	} Other diseases of digestive system	14	32	90	4	140	2

Intermediate List Number	Detailed List Numbers	Cause Groups	Euro.	Fijian	Indian	Other	Totals	Deaths
X—DISEASES OF THE GENITO-URINARY SYSTEM								
A 108	590	Acute nephritis	1	7	15	1	24	4
A 109	591-594	Chronic, other and unspecified nephritis	2	5	32	1	40	6
A 110	600	Infections of kidney	7	12	39	2	60	1
A 111	602, 604	Calculi of urinary system	9	3	47	..	59	..
A 112	610	Hyperplasia of prostate	6	9	24	..	39	3
A 113	620, 621	Diseases of breast	2	8	12	..	22	..
A 114 (a)	613	Hydrocele	1	37	32	1	71	1
(b)	634	Disorders of menstruation	16	35	86	5	142	..
(c)	601, 603 605-609 611, 612 614-617 622-633 635-637	} All other diseases of the genito-urinary system	24	68	153	11	256	1
XI—DELIVERIES AND COMPLICATIONS OF PREGNANCY, CHILDBIRTH AND THE PUERPERIUM								
A 115	640-641, 681, 682, 684	Sepsis of pregnancy, childbirth and the puerperium	1	10	21	..	32	1
A 116	642, 652, 685, 686	Toxaemias of pregnancy and the puerperium	5	20	84	6	115	..
A 117	643, 644 670-672	Haemorrhage of pregnancy and childbirth	1	19	47	3	70	..
A 118	650	Abortion without mention of sepsis or toxæmia	24	81	122	13	240	1
A 119	651	Abortion with sepsis	2	9	26	1	38	2
A 120 (a)	645-649 673-680	} Other complications of pregnancy, childbirth and the puerperium	12	55	131	7	205	4
(b)	683, 687-689 660	Delivery without complications	60	1,024	1,950	168	3,202	..
XII—DISEASES OF THE SKIN AND CELLULAR TISSUE								
and								
XIII—DISEASES OF THE BONES AND ORGANS OF MOVEMENT								
A 121	690-698	Infections of skin and subcutaneous tissue	34	256	160	18	468	6
A 122	720-725	Arthritis and spondylitis	4	24	42	1	71	3
A 123	726, 727	Muscular rheumatism and rheumatism unspecified	2	13	44	2	61	..
A 124	730	Osteomyelitis and periostitis	3	30	32	4	69	!
A 125	737, 745-749	Ankylosis and acquired musculo-skeletal deformities	2	7	9	..	18	.
A 126 (a)	715	Chronic Ulcer of Skin (including tropical ulcer) .. .. .	..	3	6	..	9	.
(b)	700-714, 716	All other diseases of skin	6	7	18	4	35	.
(c)	731-736, 738-744	} All other diseases of musculo-skeletal system	9	59	54	9	131	.
XIV—CONGENITAL MALFORMATIONS								
A 127	751	Spina bifida and meningocele	1	..	6	1	8	2
A 128	754	Congenital malformations of circulatory system	1	4	11	1	17	1
A 129	750, 752, 753, 755-759	} All other congenital malformations	3	16	46	..	65	5
XV—CERTAIN DISEASES OF EARLY INFANCY								
A 130	760, 761	Birth injuries	1	..	6	1	8	2
A 131	762	Postnatal asphyxia and atelectasis .. .. .	..	1	1	1	3	1
A 132 (a)	764	Diarrhoea of newborn (under 4 weeks) .. .. .	..	23	11	3	37	6
(b)	765	Ophthalmia neonatorum .. .. .	..	1	2	..	3	1
(c)	763, 766-768	Other infections of newborn	1	110	53	7	171	17
A 133	770	Haemolytic disease of newborn .. .. .	..	1	1	..	2	..
A 134	769, 771, 772	All other defined diseases of early infancy	3	5	10	2	20	3
A 135	773, 776	Ill-defined diseases peculiar to early infancy, and immaturity unqualified	1	9	27	..	37	9

Intermediate List Number	Detailed List Numbers	Cause Groups	Euro.	Fijian	Indian	Other	Total	Deaths
		XVI—SYMPTOMS, SENILITY AND ILL-DEFINED CONDITIONS						
A 136	794	Senility without mention of psychosis.. .. .	2	1	7	..	10	2
A 137 (a)	788.8	Pyrexia of unknown origin	6	16	20	4	46	1
(b)	793	Observation, without need for further medical care . ..	58	289	288	26	661	..
(c)	780-787							
	788.1-788.7							
	788.9, 789-792, 795	All other ill-defined causes of morbidity	57	110	190	13	370	..

“ E ” CODE—ALTERNATIVE CLASSIFICATION OF ACCIDENTS, POISONINGS AND VIOLENCE (EXTERNAL CAUSE)

Intermediate List Number	Detailed List Numbers	Cause Groups	Euro.	Fijian	Indian	Other	Totals	Deaths
AE 138	E810-E835	Motor vehicle accidents	15	23	50	6	94	3
AE 139	E800-E802	} Other transport accidents	3	8	7	..	18	1
	E840-E866							
AE 140	E870-E895	Accidental poisoning	7	11	20	1	39	..
AE 141	E900-E904	Accidental falls	31	101	163	10	305	5
AE 142	E912	Accident caused by machinery	2	7	12	4	25	2
AE 143	E916	Accident caused by fire and explosion of combustible material	6	12	13	4	35	3
AE 144	E917, E918	Accident caused by hot substance, corrosive liquid, steam and radiation	2	15	25	1	43	1
AE 145	E919	Accident caused by firearm .. .. .	..	2	6	..	8	..
AE 146	E929	Accidental drowning and submersion .. .. .	..	3	..	..	3	..
AE 147	E (various)	Accidents by foreign bodies or by animals	24	101	78	6	209	6
AE 148	E (various)	Other accidental causes	3	38	30	7	78	3
AE 149	E980-E985	Homicide and injury purposely inflicted by other persons (not in war)	2	29	49	1	81	..
AE 150	E990-E999	Injury resulting from operations of war .. .. .	..	5	10	1	16	2

" N " CODE—ALTERNATIVE CLASSIFICATION OF ACCIDENTS, POISONINGS AND VIOLENCE (NATURE OF INJURY)

Intermediate List Number	Detailed List Numbers	Cause Groups	Euro.	Fijian	Indian	Other	Totals	Deaths
AN 138	N800-N804	Fracture of skull	5	29	20	7	60	4
AN 139	N805-N809	Fracture of spine and trunk	4	16	13	..	33	3
AN 140	N810-N829	Fracture of limbs	29	95	153	7	284	3
AN 141	N830-N839	Dislocation without fracture	1	9	8	..	18	1
AN 142	N840-N848	Sprains and strains of joints and adjacent muscle	3	12	6	2	23	..
AN 143	N850-N856	Head injury (excluding fracture)	5	35	46	5	91	1
AN 144	N860-N869	Internal injury of chest, abdomen and pelvis	4	1	7	..	12	1
AN 145	N870-N908	Laceration and open wounds	6	55	74	9	144	2
AN 146	N910-N929	Superficial injury, contusion and crushing with intact skin surface	14	20	32	3	69	1
AN 147	N930-N936	Effects of foreign body entering through orifice	1	7	11	1	20	..
AN 148	N940-N949	Burns	7	28	45	4	84	6
AN 149	N960-N979	Effects of poisons	6	13	26	1	46	1
AN 150	N950-N959 N980-N999	} All other and unspecified effects of external causes	10	35	22	2	69	3

APPENDIX XVI

URBAN/TOWNSHIP/RURAL SANITARY DISTRICTS OF FIJI
REPORT OF HEALTH INSPECTORS FOR THE YEAR 1957

1—SUMMARY OF INSPECTIONS

Type of Premises, etc.	Inspections	Re-Inspections	Total
House-to-house Inspection of Districts	41,209	17,374	58,583
Investigations of Complaints, Nuisance, etc.	1,140	677	1,817
New Buildings Sites—Before Approval	1,218	81	1,299
New Buildings—Works in Progress	4,617	1,469	6,086
Investigation of Infectious Diseases and Disinfection	1,207	125	1,332
Shipping	247	14	261
Aircraft	414	17	431
Houses let as lodgings and lodging houses	218	127	345
Factories and Workshops	639	421	1,060
Cemeteries	459	135	594
Schools	853	293	1,146
Checking Sanitary Services (A/cs, etc.)	1,566	432	1,998
Laundries	1,126	250	1,376
Hairdressers, Chiropodists, etc.	1,065	685	1,750
Foodshops, Foodstores, Markets, etc.	3,727	1,937	5,664
Eating Houses and Ice Cream Premises	1,488	1,024	2,512
Aerated Water and Ice Factories	242	140	382
Kava Saloons	198	119	317
Bakehouses	425	305	730
Slaughterhouses	104	87	191
Butchers' Shops	277	171	448
Food Vehicles	545	352	897
Dairies, Hotels, Boarding Houses	497	169	666
Inspection of Gang Works	1,075	168	1,243
Sanitary Survey of Ships	84	....	84
Theatres	42	16	58
Miscellaneous	2,298	220	2,518
Total	66,980	26,808	93,788

2—WRITTEN NOTICES, ETC., ISSUED

Intimation Notices served	7,999
Statutory Notices served	659
Buildings Surveyed for Closure or Demolition	235
Closing Orders served	182
Demolition Orders served	53
Buildings Demolished after service of Orders:—	
By Owners	25
By Local Authority	6
Notices of Intention to Demolish served	16
	9,175

3—BUILDING APPLICATIONS DEALT WITH

	Number	Value
Applications in respect of new buildings	1,106	£435,722
Applications in respect of repairs and alterations	87	£15,490
Applications in respect of septic tanks	21	£2,660
Total	1,214	£453,872
Buildings completed and passed during the year		1,421
Applications outstanding in Register (work not completed)—		
New Buildings		13,755
Alterations and Repairs		1,005
Septic Tanks		425
Buildings applications lapsed		140
Buildings applications rejected		5
Buildings applications withdrawn		25

4—SUMMARY OF SANITARY IMPROVEMENTS, ETC. (ALL TYPES OF PREMISES)

Item	Ordered	Completed
Repairing of buildings	391	236
Improvements of lighting and ventilation of buildings	207	137
Removal of unauthorized erections	435	215
Abatement of overcrowding	234	77
New privies (all types)	2,066	1,350
Repairing, cleansing or flyproofing of privies	3,265	2,304
Filling in of insanitary privies	1,462	1,150
New bathrooms or washing places	290	154
Repairing or cleansing of bathrooms and washing places	873	705
New kitchens	201	116
Repairing or cleansing of kitchens	573	476
Provisions of new drains	791	571
Repairing or cleansing of existing drains	2,804	2,025
New wells	104	54
Repairing or improvement of wells	775	520
New water tanks	115	75
Repairing, screening or cleansing of water tanks	749	366
Removal of accumulation of refuse, etc.	6,731	4,887
Clearing of overgrowth of long grass	6,133	4,436
Provisions of garbage tins	1,498	1,353
Abatement of nuisances from animals or poultry	1,865	1,013
Abatement of mosquito breeding	3,975	3,106
Cleansing of food premises	1,802	1,395
Structural improvements to food premises	307	253
Cleansing of food vehicles	362	343
Improvements to food vehicles	119	91
Cleansing or improvements to hairdressers' premises	352	312
Cleansing or improvements to laundries	115	103
Cleansing or improvements to schools	118	72
Cleansing or improvements to shipping	71	60
Impounding of straying cattle	110	124
Miscellaneous	200	164
Total	39,095	28,243

5—MOSQUITO CONTROL

Premises inspected for mosquito larvae	64,147
Premises at which larvae found	3,550
Larval Index	5.5 per cent

6—DISINFECTION, DISINFESTATION AND FUMIGATION

Type of premises or vessel	Method	Number
Overseas vessels	Aerosol Bombs	62
Overseas vessels	Cyanide	2
Local vessels	Formalin, Cyanide	84
Local vessels	Dieldrin and Aerosol Bomb	1
Dwellings	Formalin and Cyllin	28
Dwellings	D.D.T., Kerosene, Pyagra, etc.	234
Aircraft	Aerosol Bombs	539
Hospitals	Dieldrin and Formalin	10
Wells	Chlorination	42
Miscellaneous Items .. .. .	.. .. .	1,684
International Deratization Certificates issued .. .. .	.. .. .	2
International Deratization Exemption Certificates issued . . . . .	.. .. .	2
Certificates of Pratique granted .. .. .	.. .. .	281
Overseas vessels—Malarial inspections .. .. .	.. .. .	62

7—ANTI-RAT MEASURES

Rat Poison Set	400
Traps Set	4,905
	Rattus Rattus Rattus Norvegicus Total
Rats Destroyed by Poisoning	495 491 986
Rats Destroyed by trapping	223 626 849
Rats Destroyed by fumigation—	
Overseas shipping	23 23
Local shipping	66 20 86
Rats submitted for laboratory examination	45 43 88
Mice Unidentified .. .. .	.. .. . 256

8—SUPERVISION OF LABOUR GANGS, ETC.

Number of men employed, clearing and draining work done, loads of refuse removed:—

Number of men employed	..	..	..	..	..	538
Clearing and draining work done	..	..	..	..	..	6,668
Loads of refuse removed	..	..	..	..	..	18,947
Latrine pans dealt with	..	..	..	..	..	24,503

9—FOOD INSPECTION AND SAMPLING

Unsound foodstuffs condemned and destroyed—97,209 lb.

Food and water samples taken—

Milk—Genuine	..	..	13	Aerated water	..	..
Non-genuine	..	..	..	Water (chemical)	..	..
Ice-Cream-Genuine	..	..	16	Butter	..	..
Non-Genuine	..	..	..	Margarine	..	..
Fresh-water (Bact.)	..	..	346	Sea Water and Baths, etc.	22	..
Miscellaneous	..	..	2			

10—LEGAL PROCEEDINGS

Defendants, Offences and Results of Action—

Public Health Ordinance				Pure Food Ordinance			
Cases	..	..	333	Cases	..	..	7
Convictions	..	..	314	Convictions	..	..	7
Penalties	..	..	£997 7 6	Penalties	..	..	£33

11—REMARKS AND DETAILS OF ANY OTHER SPECIAL WORKS CARRIED OUT DURING THE YEAR UNDER REVIEW—

Sanitation Campaign

		Number	£	s.	d.
			Amount		
Squatting Slabs sold	..	391	195	10	0
Latrine plugs sold	..	143	14	6	0
Pedestal sets sold	..	96	192	0	0
Pedestal seats sold	..	9	9	0	0
Total	..	639	£410	16	0

12—SEA PORT AND AIRPORT HEALTH QUARANTINE

The following are comparative figures in respect of shipping dealt with over the last five years—

	1953	1954	1955	1956	1957
Ships given Pratique	.. .. 194	206	222	240	281
Landing Passengers	.. .. 1,954	2,385	2,902	6,972	6,081
Aircraft given Pratique	.. .. 921	1,066	1,219	1,376	1,763
Landing Passengers	.. .. 7,953	10,615	12,597	13,660	13,844
Local vessels fumigated	.. .. 50	92	72	80	85
Overseas vessels fumigated	.. .. 7	15	19	3	2
Aircraft treated with Aerosols	.. .. 316	373	384	576	539
International Deratization Certificates	.. .. 3	..	1	4	2

APPENDIX XVII

SUVA GAOL

During the year 1957, Dr. H. W. Conran, Dr. P. W. Downes and Dr. T. A. U. Clunie acted as visiting Medical Officers to Suva Gaol. Assistant Medical Officer Maika Vuki has been in charge of the Infirmary.

2. Regular visits were made by the visiting Medical Officer once weekly and cases referred to were examined and treated. Prison buildings, bakery, kitchen, including the warders' compound, were regularly inspected and found to be satisfactory. The bread storing room was recommended for screening towards the end of the year, this was attended to promptly.

3. All new prisoners, numbering 601 were examined on admission and those who were sentenced to terms of imprisonment exceeding one month also had a chest X-ray, but towards the end of the year, all prisoners were X-rayed irrespective of term of imprisonment.

4. The usual sick parades were held in the Prison compound once daily and serious cases were attended to in the morning in the Gaol dispensary, by the resident Assistant Medical Officer.

5. Cases of influenza and minor ailments were put off work and were treated in their respective rooms.

6. The following cases were transferred to the Colonial War Memorial Hospital:—

- (a) 1 Deep inguinal adenitis
- (b) 1 Dysphagia. Was admitted to Colonial War Memorial Hospital on the day of discharge from Gaol.
- (c) 1 Hydrocele
- (d) 1 Fractured mandible
- (e) Perforated duodenal ulcer
- (f) 1 Aphasia
- (g) 1 Ear polyp
- (h) 1 Tuberculosis of the right hip
- (i) 1 Tuberculous meningitis
- (j) 1 Haemorrhoids
- (k) 1 Pulmonary tuberculosis

7. *Infectious Diseases*—Forty-two cases of infectious diseases were notified during the year:—

(a) Gastroenteritis	..	..	..	..	9
(b) Influenza	..	..	..	..	27
(c) Measles	..	..	..	..	5
(d) Syphilis	..	..	..	..	1

8. Five cases of Pulmonary Tuberculosis were transferred to Tamavua Hospital—

(a) Prisoners	..	..	..	..	2
(b) Warders' wives	..	..	..	..	2
(c) Warder	..	..	..	..	1

9. A complete report and sketch, showing housing conditions, population, visitors, cases of pulmonary tuberculosis and suspects or follow-up cases was submitted to the District Medical Officer, Southern, in November concerning the incidence of tuberculosis in the Gaol warders' compound.

10. Two cases were transferred to the Mental Hospital—

- (a) 1 Chinese male with general paralysis of the insane
- (b) 1 Indian female mental defective.

11. No corporal punishment or judicial hanging took place last year.

APPENDIX XVIII

METEOROLOGICAL REPORTS

The following meteorological reports for the year 1957 have been supplied by the Meteorological Office:—

LAUCALA BAY					SUVA				
Rainfall—					Rainfall—				
Total	..	..	..	90.92"	Total	..	..	..	102.25"
Normal for 14 years	..	..	..	117.83"	Normal for 69 years	..	..	..	124.25"
Departure from normal	..	..	..	— 26.91"	Departure from normal	..	..	..	22.00"
Wet days (0.01" or more)	..	..	..	194	Wet days (0.01" or more)	..	..	..	190
Wettest day, 3rd March	..	..	..	7.30"	Wettest day, 3rd April	..	..	..	7.50"
Temperatures—					Temperatures—				
Mean Maximum	..	..	..	83.1°F.	Mean Maximum	..	..	..	82.5°F.
Highest Recorded (7th Jan.)	..	..	..	93.4°F.	Highest Recorded (14th Jan)	..	..	..	92.8°F.
Mean Minimum	..	..	..	71.6°F.	Mean Minimum	..	..	..	71.7°F.
Lowest minimum (10th July)	..	..	..	54.2°F	Lowest minimum (10th & 11th July)	..	..	..	60.0°F.
Mean Temperature $\frac{1}{2}$ (max. + Min)	..	..	..	77.4°F.	Mean Temperature $\frac{1}{2}$ (Max + Min).	..	..	..	77.1°F.
Departure from normal	..	..	..	+ 0.4°F.	Departure from normal	..	..	..	— 0.1°F.
Mean Temperature at 9 a.m.	..	..	..	78.4°F.	Mean Temperature at 9 a.m.	..	..	..	78.4°F.
Humidity—					Humidity—				
Mean humidity at 9 a.m.	..	..	..	78%	Mean humidity at 9 a.m.	..	..	..	78%
Bright Sunshine—									
Total hours	..	..	..	1,822.0 hours					
Mean daily	..	..	..	4.99 hours					

NOTES

2. The year was fairly dry and a little warmer than average.
3. Rainfalls for January, April, July and November were above average, while other months were below average, some to a considerable extent. The total rainfall for the year was 22.00" below average.
4. April with a fall 23.00" was the wettest month and July with 2.60" was the driest. The wettest day of the year was April 3rd, with 7.50". It was also the third wettest April day since records were started in 1884.
5. The prevailing wind direction was East to South-East with a frequency of 68 per cent. The mean speed was 7 knots with a maximum gust of 44 knots from the South on 14th November.
6. In January, a tropical cyclone moved South-Eastwards from Loyalty Islands to the Kermadecs passing about 350 miles South-West of Fiji. Several mild depressions developed in the area North-East and North-West of Fiji in February. On 24th February, a depression formed in the vicinity of Wallis Island, moved South-West gradually deepening, and passed 20 miles East of Suva on 26th. On 27th, when some 150 miles South of Sigatoka, it developed into a full hurricane and moved away to the South-East.

